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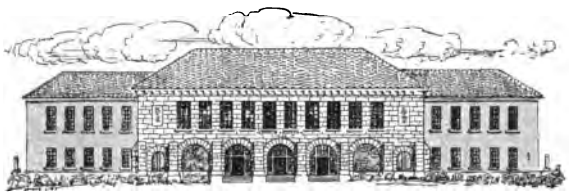

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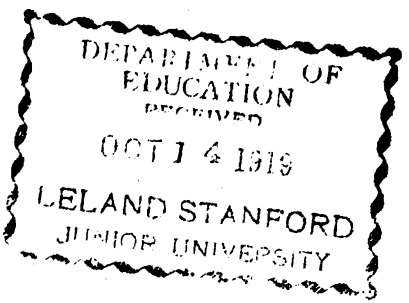

A. R. HORNE.

COMMON SENSE

HEALTH NOTES,

BY

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CHICAGO:
A. FLANAGAN, PUBLISHER.

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INTRODUCTION.

The author and compiler of these notes has had an experience of nearly half a century as editor, lecturer and teacher. He has long felt the want of a hand-book on common sense hygiene. He has, in his talks before schools and on the platform, endeavored to impress upon young and old, particularly parents, teachers and pupils, the great importance of the preservation of the health.

The sallow complexion, and the ghastly look of many, and especially of teacher and pupils, too often betray the fact that sad and serious mistakes are made on the subject of hygiene. The head-aches, failing of appetite, diphtheria, and even consumption, of which many suffer may, too often, be traced to the school-room.

Dyspepsia is a fashionable disease in our country. The man or woman who is not a dyspeptic is considered unfashionble, or is, at least, an exception to the general rule. Diphtheria, sore throat and bad colds are as common as mosquitos on a summer evening. When the average person goes out, he must wrap a sheet or comfortable around his neck, for fear of catchimg cold. He is afraid of a breath of fresh air, and would rather sit or sleep for hours in the foulest atmosphere, than inhale a little fresh oxygen. He fears he might catch a cold. He is afraid to eat a piece of pie or of roast beef

"because it won't agree with him." Miserable being he is. Greatly to be pitied, indeed! By following the ordinary rules of health laid down in this book he need have no fear of roast beef not agreeing with him.

Much of this misery, through which a large portion of the human family pass, can be traced to poor ventilation, especially in the school-room. We have seen a fifteen by twenty school-room with low ceiling crowded to its utmost capacity with children, no ventilation, and the air thick enough to drive a nail in and hang a hat on. We have entered such school-rooms on a dull day where the air was so vitiated that we almost fainted on passing from the pure, sweet out-door atmosphere into such a den of corruption. Here they were, a sorry looking set, the teacher and fifty or sixty pupils, more dead than alive.

At other places we have seen school-houses built with fast blinds to them, so that no cheering ray of God's sunlight could enter. As in a dark cellar, sat the innocent little ones six to eight hours a day. How glad they were to rush out of their prison, and get a glance of the glorious sunlight. What a perversion of the Almighty's wisdom. Why did he not make the world without a sun? We suppose that people who build houses in this way would have made the world thus, had they been the makers of it. What a pity they were not. Were we compelled to dwell in such a dungeon, some time between night and daylight we would invite a Sampson to carry these gates of Gaza to a distant hill-top. By accident, a pane of glass might easily be broken, to admit a little fresh air, where no provision has been made for it. Those teachers and

directors and parents who deprive innocent children of God's fresh air, and his glorious sunlight, when he has made so much of it, and it can be had so cheaply, are guilty of a violation of that commandment which says: "Thou shalt not kill."

That the practical common sense suggestions given in a limited way may be promulgated, in a wider sphere, has led to the publication of these notes. If they are followed the average person's health will be benefitted much, while doctors and patent medicine men will lose much of their patronage.

The author desires to acknowledge his indebtedness to *Hall's Journal of Health*, and numerous other sources, for some of these notes. They are sent forth in the hope that they may be promotive of great good.

Allentown, Pa. THE AUTHOR.

Common Sense Health Notes.

Common Sense Notes About Air.

Air consists of two elements, oxygen and hydrogen. The latter is but a negative, being neither promotive of, nor injurious to health. It is true a candle will not burn when immersed in it, nor will life be sustained by it. But this is simply for a want of oxygen, and not because the gas is poisonous. Oxygen, however, is a positive element—a sustainer of combustion, and consequently also of life. For the want of this body, life would go out, just as the flame of a candle expires.

Small Bedrooms.—If a person were put to sleep in a room six feet high, eight feet long, and a little over four feet broad, and no air was allowed to come in from without, all the life of the air would be consumed, and he would die at the expiration of the eighth hour, even if each breath given out could be kept to itself.

Since each out-breathing vitiates the whole body of air in a close chamber, as a drop of ink will discolor a glass of water, it should have a thorough ventilation; that is, a current of air should be passing through the open fire-place and chimney, carrying before it the bad air, leaving a fresher and purer in its place.

But very few chambers in this country measure twelve feet square, and consequently are not large enough for one person, let alone two; and in proportion as the room is too small, in such proportion are the lungs and body and blood deprived of their essential food, as essential to life as water is to the fish, and in such proportion are sown the seeds of disease and premature death.

A man takes into the lungs in twenty-four hours about sixty hogsheads of air, as in health he breathes about eighteen times in a minute, on an average, for the twenty-four hours, and takes in about a pint or forty cubic inches at a breath.

The air, when inhaled, undergoes a change, the oxygen combining with the particles of matter in the body, which are carbon, forms carbonic acid gas—a deadly poison. To demonstrate this, take an ordinary glass jar, through a glass tube, or in its absence, a smoke pipe, exhale the contents of your lungs. In order to do this the jar must be filled with water, and then inverted and held in this position, in a bucket full of water. As you thus exhale the contents of your lungs into the jar full of water, the water will be displaced, and the contents of the lungs fill the jar. Now lower into this jar, before any air is admitted, a lighted candle. The flame will immediately expire. This experiment may be repeated several times in the same jar. The reason of the light going out, is the presence, in the jar, of carbonic acid gas—the same poisonous sub-

stance found at times in old cellars, wells, and other low places. It is evident that where combustion is not supported life cannot exist—life is a continued act of combustion. Whoever doubts this may but try to go down into a well, where a candle will not burn.

This same gas accumulates wherever there is combustion, such as fires, lights, breathing, etc. Everywhere, in other words, where there is not a constant supply of fresh air, where there is not a constant circulation of fresh air, the air becomes foul, contaminated, poisonous. Such will be the case in a room where there is breathing, or a fire or a light burning. It is astonishing how soon the fresh air of even a large room will become so vitiated, though there are but few persons in it, that it is no longer fit for inhalation and becomes positively prejudicial to life.

Breathing a bad air for a very few days may introduce a poison into the system which shall so impregnate it that no amount of subsequent exposure to a pure atmosphere will avail to arrest its malignant and fatal influences, although months and years have passed away since the occurrence of the infection.

If ordinary chambers are but equal to twelve feet square, and that is barely enough for one sleeper, and it is the common custom for two at least to occupy such a room, we have the general fact of a world of people voluntarily allotting to themselves just one-half of the requisite amount of air during every night of their existence, by which their blood is just half purified,

their systems just half washed out, just half renovated!

An ordinary candle forms eight hundred cubic inches of carbonic acid gas in an hour, an average sized man does the same in half an hour. One man in a room, twelve feet long, broad and high, into which no fresh air is admitted, would convert the whole atmosphere into carbonic acid gas in twelve hours. The only reason why thousands of persons, who going to bed in good health, in a small room, are not dead before morning, is because some air forces itself into the room at the cracks of doors and windows.

When a person enters a room, where others have been vitiating the air for some time, he feels an oppressiveness, the air is close, that is, it has but little oxygen. Those whose lungs are weak feel it most. But, whether felt or not, inhaling bad air—air which has been partly converted into carbonic acid gas, injures health and destroys life gradually.

Expired air contains watery vapor, carbonic acid gas, and animal matter, which is probably the most deleterious of all. The large amount of watery vapor is shown by breathing upon a cold window pane: carbonic acid by blowing the breath through lime water: and the presence of animal matter may be detected by breathing into a large bottle and tightly corking it for several days. A fetid odor will then indicate the decay of animal particles.

This exhalation imparts an odor to the breath, and is the active agent in the communication of contagious

diseases. The foul air of churches, tightly closed during the week, with the bad air of the previous Sunday, furnishes frequent illustrations of the third class of impurities.

It is a mistaken idea that carbonic acid will settle to the floor, and there remain out of harm's way. By the law of diffusion of gases, it is immediately disseminated through the room, and, unless removed by a constant supply of fresh air, cannot fail of producing injurious effects. It is not enough to renew the air of the room at recess at noon. The supply should be constant. In many rooms the air is vitiated in less than ten minutes. No physiologist pretends that less than seven cubic feet of air per minute are needed for each person, and some say that ten feet are necessary to maintain a proper condition of the atmosphere.

Poorly Ventilated School-houses.—In many cases the true cause of a dislike for school may be found in a poorly ventilated house. Nor is a neglect of proper ventilation confined alone to district schools. In towns and cities where beautiful buildings attract the eye of the visitor, where furniture and apparatus are faultless, children may be found living innocently in an atmosphere of poison; inhaling the poisonous effluvia which pervades the atmosphere, and is not only re-breathed, but adheres to all surroundings, it sticks to the walls and furniture, settles into the drinking cups, food, utensils; permeates the clothing and attaches to the person. It creates a nidus which is not only in

itself poisonous, but also becomes a hot-bed for planting and propagating specific poisons, such as small-pox, scarlet fever, whooping cough, diphtheria, and the whole category of epidemic diseases, and is that frightful source of scrofula and consumption.

The specific poisons which perpetuate this class of diseases are kept alive by the conditions common to the school-rooms.

Heat intensifies, but does not cause the summer poisons, and it frequently has the same effect in over-heated school-rooms at other seasons. In taking charge of a school, a teacher becomes responsible, not alone for the intellectual and moral development of his pupils, but also for the health of the children committed to his trust.

Body as well as mind require the constant care of the true teacher. A teacher has as much moral right to dose his pupils with arsenic as to permit the free inhalation of carbonic acid gas, and, what is worse, animal exhalations.

In one case the effects are immediately visible; in the other they are frequently deferred, but just as certainly go to make up the account which is balanced only by disease or death. Too often the teacher can, with some apparent justice, throw the responsibility upon school officers and school committees.

In many districts no arrangement whatever is made for lowering windows, or for the escape of foul air. Farmers are always thoughtful enough to place slats

on their barns and barn windows for the purpose of securing proper ventilation for their stock. They know animals will not thrive, and that they will become diseased without such precaution, but the same persons go together and build school-houses without one thought or one care for the supply of pure air to their children. But fresh air is so free and the supply so bounteous, that no teacher can justly plead defective building arrangements. Provide a place for the escape of warm foul air, and a supply of new air will generally find its way through crevices of doors and windows. School-houses nearly always have a trap-door in the ceiling; throw that off partially, or wholly, and you will have done much to secure pure air in the school-room. The air may sometimes seem cool, but a temperature of sixty degrees is far better than a filthy, noxious atmosphere. The supply of oxygen to the lungs is a physiological necessity.

In cold weather doors and windows are usually closed, and the matter of pure air becomes one of serious importance. During the day, the air of living-rooms is pretty certain to be changed more or less by the frequent opening of outside doors. During the night, however, not infrequently all outside openings are tightly closed, and the occupants of sleeping-rooms might almost as well place themselves for the eight or ten sleeping hours of night in an air-tight box.

In the morning, persons who thus deprive themselves of life-giving oxygen, the great necessity of life, awake

unrefreshed and dispirited, languid, pale and weak, with headache, giddiness, no appetite, and many other symptoms of the foul air poisoning to which the system has been subjected. This accounts for a very large part of the colds and other forms of physical wretchedness of which a good many complain at this season of the year, and which is ordinarily ascribed to the change of season. The system is filled with impurities as a result of deficient oxygenation of the blood, and so the body becomes in a high degree susceptible to all causes of vital disturbance. The reception of a few fever germs is all-sufficient to bring on a violent illness, by setting fire to the fever-feeding material with which the tissues are filled as the result of deficient air cleansing.

Airing Apparel of Wear.—On a clear, cool, dry day, make a point of exposing wearing apparel to air and sunshine. Articles of clothing are absorbents of foul, poisonous gases, which in turn will be absorbed by the pores of the skin, if the clothing is worn without being thoroughly ventilated.

Bad Ventilation.—Many persons, more particularly females, and especially female teachers, and girls attending school, become sufferers in consequence of bad ventilation, from throat troubles, headaches, nausea at stomach, and the legitimate consequences of breathing the fetid atmosphere of illy ventilated rooms.

The great question, however, is how to remedy this state of affairs. It certainly is not good policy to lower the tops of the window-sash so as to admit the

raw, cold air on the heads, necks and backs of those sitting near by. If the air-cells in the lungs were opened and spread out on a wall, over four hundred square feet of surface would be covered, or about as much as the whole surface of the body. If the hand be put in water, and then suddenly placed on any part of the body, the shock of the coldness is such that it produces a disagreeable sensation all through the system. If a bucket of cold water were dashed over our bodies, immediately on coming out of a warm apartment, the shock and the ill effects would prove fatal in many cases, especially if this were repeated a dozen times.

The lungs are as sensitive as the skin. We breathe sixteen times a minute, and thus inhale the cold air by the bucketful, where it is thus thrown upon us. Hence it is not to be wondered at that persons often "catch their death of cold" in the shape of pleurisy, lung fever, pneumonia, bad colds and terrible chills.

How to Ventilate. Here are a few suggestions:

Always ventilate thoroughly by opening windows and doors of every room, whether school room, church, sleeping apartment, etc., where there has been foul air, as soon as everybody is out. This should be done at recess time in school rooms, and especially in the evening after dismission.

Never allow dinners or lunches to be eaten in the room where persons have been for hours beforehand. This applies to factories, workshops, etc., as well as to schools. Always compel all to go out into the open air

and walk or run off the foul air for five minutes before eating in such a room. Meanwhile let the room be ventilated by opening doors and windows. Try this and you will be delighted with the change.

Have several gymnastic or singing recesses in school each half day, and while two or three minutes, or even five are thus spent in profitable recreation, throw open doors and windows, but have them closed as soon as the exercise is over.

Where lowering and raising of windows must be resorted to for ventilation, be exceedingly careful to have all so seated that no draught of cold air can reach them. Whenever a window is lowered from the top, it should also be raised below, so as to allow a current of air to circulate, and thus carry off the foul air.

Teach children how to breathe, how to expand the chest and fill the lungs, not to inhale with mouth open, but through the nose, and then when they get out into the fresh air enjoin on them to inhale and exhale to the full capacity of the lungs, filling every air cell. This should be done several times a day, and particularly in the night before retiring. Having a breathing exercise in school, as well as a reading, an arithmetic and a grammar drill. It is as necessary to learn to breathe as it is to learn to spell and read.

As you value your own life and that of your child, do not neglect ventilation, and if compelled to remain in badly ventilated rooms any length of time embrace the first opportunity to inhale fresh air out of doors.

We talk in this Christian land loudly of the dreadful results of paganism, and yet how much there is to be learned and done at home! We are horrified at the idea of the heathen mother casting her baby into the Ganges, of the wife burning a voluntary sacrifice on the funeral pile of her dead husband, but what have we to say of an innocent babe being not suddenly, and perhaps painlessly brought to death by drowning, but by a slow and tortuous process, killed off by poisonous air? Or, what say we of the young man or woman who commits premeditated suicide by inhaling a most pestiferous, deadly poison, when God's fresh air can be had without money and without price? Wake up, preacher of Christ, preach a gospel of health, a gospel of the salvation of the body as well as the soul, and you will also thus preach Christ. Wake up, teachers, and teach your pupils how to save themselves from a miserable existence while they live, and an untimely death, and you will be doing a most noble work. Parents, impress the lessons of health upon your offspring, and teach them thus to avoid misery and become happy. And we who know our duty, blessed are we if we do it. He that knoweth to do good, and doeth it not, shall be beaten with many stripes.

Health Notes for Autumn.

Autumn.—This is the season when both out of doors and in the house great care must be taken of health. Insufficient clothing, inconsiderate exposure, and other various indiscretions are prejudicial to health. Health is easily lost, but not so easily regained. An ounce of prevention is always worth a pound of cure. A little attention to the laws of health may prevent much sickness and distress. Every teacher and parent is responsible, to a great extent, for the health and well-being of those committed to his care. Observe and enforce the following common sense suggestions:

Let the clothing be sufficient, rather a little uncomfortable than insufficient. It is better to don the heavy underwear of winter now than to defer doing so and catch a severe cold.

Avoid all exposure, such as draughts, throwing aside articles of clothing, when they become uncomfortable, sitting on the porch, at an open window, on the door-step, etc.

Do not bundle up the throat with scarfs, mufflers nor anything else. If the throat is kept bare it will become hardened like the face, and thus enabled to stand almost any kind of exposure. Wrapping it up makes it susceptible to changes, and readily affected thereby.

There is no necessity for children getting the measles, whooping cough, chicken pox, scarlet fever, diphtheria and similar diseases. If they are kept aloof from those attacked thereby till they are outgrown, the danger of taking these diseases is not very great.

The danger of taking cold is always greater in an overheated room than in one a little uncomfortable, provided there is no dampness.

In illy ventilated rooms the system becomes filled with impurities, and thus the body becomes susceptible to all kinds of vital disturbances, the reception of fever germs, and various kinds of illness, of which headaches are the precursors. Ventilate school rooms, sitting rooms, sleeping apartments, VENTILATE, VENTILATE.

In cold weather there is danger of bathing being neglected. Now is the time when it is most necessary, because the heavier the clothing the more the effluvia of the body are retained, therefore the absolute necessity of keeping the body clean by frequent ablutions. Bathe, wash, keep the body clean.

September a Sickly Month.—September is the most sickly month of the entire year. It is fruitful in diarrhœa, dysentery and fevers of every description, from the common fever and ague to the most malignant form of bilious, congestive and yellow fever.

The causes are hot days and cool nights, and the habits of individuals. Few persons have good appetites in hot weather. They then resort to stimulants. The stomach is taxed beyond its ability to work by eating to

the fill of a stimulated appetite. The result is that the food is not perfectly assimilated, and hence it makes bad blood. The entire mass of blood becomes corrupted, and the person feels unwell. **Do not force the appetite.** He "takes something," perhaps, whisky, beer, peppermint, an appetizer, a tonic, tea, bitters, in short anything or everything, *Lebens*, *Tinctur*, *Life Elixir* to *Schnapps*.

The delicate mucous membrane or lining of the stomach is irritated, he imagines he feels a gnawing sensation, which indeed he does, but it is a morbid sensation not a healthful craving for food, and he continues to stuff himself with additional food. The stomach, in fact the whole machinery of the body, is now taxed still more severely. The result is that the body loses its vigor, its capability of resisting causes of disease and warding off sickness. "The slightest thing in the world" gives such a person a cold. The reason is he is full of bad blood.

The appetite gives out more and more, there is a bad taste in the mouth on waking up in the morning, an uncomfortable chilliness, and the person is a fit subject for any cause of disease existing in the atmosphere; he becomes the first victim to any epidemic.

It is customary at this season to attribute to the morbid influence of "malaria" many of the diseases which are really the result of exposure to midday heat and nocturnal chilliness. The air temperature is now subject to great diurnal range because the solar heat

absorbed by the soil during sunshine hours is rapidly thrown off at nightfall. On the far western plains thermal changes of thirty-two degrees in twenty-four hours have recently been reported. These daily vicissitudes are less marked near the sea coast and at some points in the arctic regions, as Melville Island. During the winter the midnight and the midday temperatures are almost identical. But in all the middle latitudes, even on our Atlantic seaboard, the contrasts are very sensible. Excursionists and travelers especially should keep out of the night air, and if all classes would be prudent in this respect we should hear but little of malarial fevers in autumn.

The miasm generated by decaying vegetable matter, mud, leaves, plants, roots, etc., when the noonday sun shines upon them, rises into the air. At night this air is condensed, becomes heavy, falls to the ground, is breathed in the swamps of the South, on the banks of rivers, along the shores of lakes, along streams in valleys, but more particularly on elevated ground, and produces the diseases mentioned above.

How to Escape Malaria.—How can a person escape these malign effects? Live plainly, temperately, exercise abundantly, work off the bad blood and effete matter in the system; do not overload the stomach, use no stimulants, avoid pepper, salt and spices in general; the less meat the better, except a good piece of beefsteak for breakfast, avoid corn bread especially, also bacon—hear it, southern friends, dispense with your bacon; no bacon! no bacon!

Never go out of doors before you have some warm food in the stomach, particularly a cup of good strong coffee, none of your cloudy, muddy stuff in which the coffee has been omitted. Ripe fruit, eaten in season, is always healthful. But sometimes the fruit is eaten unripe and frequently these damp, murky days decay begins almost the moment it is ripe. When it is thus eaten it is no longer in a healthful condition. In this state it is poisonous and breeds disease. As such it should be shunned.

All decaying matter should be carefully and conscientiously removed whether in cellar, pantry, outbuildings, yard, garden, street, alley or farm. Allow no rotting fruits or vegetables about the premises. Search from cellar to garret daily, and remove whatever is suspicious without delay.

This state of things, if permitted, is a prolific breeder of disease. Better pay the children a small sum to gather up and haul away this refuse than to pay a large doctor's bill and entail suffering, sickness and death on you and yours.

Here, by the way, let us also again shock the pseudo modesty of some by calling attention to the vital necessity of cleaning and disinfecting cesspools and privies. The damp air carries the poisonous emanations to your own and neighboring buildings, to say nothing of the stench and vile odors which arise from them in damp weather. Buy a pound of copperas and dissolve it in two gallons of water. Pour

the solution by the tincupful into water closets and around the building.

Do it at once. Delays are dangerous. Save yourself and family.

Dampness Causes Sickness.—The raw, damp mornings and evenings are fruitful causes of colds and sickness. Damp walls, damp rooms, damp cellars, damp ground and damp clothes are productive of heavy colds. Sitting in a damp room until one feels chilly, dressing in damp clothes which have been lying about on damp floors in the night, damp parlors, sitting rooms and school rooms, in which there are as yet no fires, will swell the sick list and mortality bill most fearfully.

What is to be done? The weather cannot be changed. These cool, damp September nights visit us every year, only some years more so than others, as the season is more wet than dry. Now is the time for fever, this is the month malign. We cannot change the month, but we can guard against exposing ourselves unnecessarily to the dampness, or remaining long in a damp, chilly room.

Fires must be made to take off the dampness, even if for only half an hour in a day. Undergarments must again be worn. Avoid being out in the dampness, especially after nightfall. Always have a bright fire after sunset. Do not retire at night into a damp bed, even if it only feels damp. Do not "slip on" your damp clothes feeling sticky, like molasses, where they

touch the body. Keep windows and doors closed until the sun shines out brightly again. Remember that diphtheria, scarlet fever, malaria, rheumatism, etc., are getting in their deadly work, and will carry off to the grave their victims by thousands this fall again, not only children, but also adults. Will you be one of them? Multitudes of children are taken sick with different maladies, resulting from damp school rooms, with possibly water in the cellars. Nine-tenths of these diseases and deaths are avoidable. It is our duty toward God to do all in our power to preserve our health and a clean, dry, warm room will go far toward accomplishing this.

Parents, see that your children wear underclothing; begin now; never mind a few warm or even hot days; they can be endured much better than subsequent sickness; the cool, damp days and nights will soon have the majority. Do not allow children to run around with bare feet and damp stockings at this season. Make them eat something warm before they go out in the morning. It will not hurt you to observe the same rules, though children are more sensitive and hence get sick more frequently.

Teacher, you especially are under obligations to God and to children and their parents to enjoin the observance of the laws of health upon the young. You will have to answer at the bar of your conscience, and at the day of judgment, if you are derelict in these matters.

Observe the Laws of Health.—In general keep a fire in the living room, night and morning, on these September days, when it is hot in the middle of the day, but cool and damp at its beginning and close. If you have a good old-fashioned hearth, so much the better. Keep bright fire on it; nothing is more pleasant or healthy. Do not think because you have a fire you must shut the doors. This is better than quinine for keeping off malaria. Fruit, peaches, apples, pears and grapes are much more healthful than pastry and pudding. Trust in God and you will have done your duty, and most likely escape the evils of the month malign.

Apoplexy.

Description.—This disease has become very common of late years. The word Apoplexy means "stricken from;" a description given by the Greeks, under the feeling that it was of unearthly origin. The person falls down as if stricken with death. There is neither thought, feeling, nor voluntary motion. There is no sign of life, except that of heavy breathing. It comes on with the suddenness of the lightning's flash, and with as little premonition. A common fainting fit occurs suddenly, but there is no breathing, no pulse, and the face is pale and shrunken. In apoplexy, if the person is not really dead, the face is flushed, the breathing loud, and the pulse full and strong, usually. In mild attacks, a person is found in bed of a morning apparently in a sound sleep; but if so, he can be easily waked up. In apoplexy no amount of shaking makes any impression. The earliest Greek writers described apoplexy with a minute accuracy, which has scarcely been exceeded since, showing that it is a malady belonging to all time. To pass from apparent perfect health to instant death on entering one's own dwelling, or sitting down to the family table, or while at the happy fireside, in the loving interchange of affectionate offices, strikes us as being perfectly terrible. But the terror belongs to the witness; the victim is as perfectly destitute of thought,

feeling, sensation, and consciousness, for the time being, as if the head had been taken off by a cannont ball. In many cases, after lying for hours and even days in a state of perfect insensibility, the patient wakes up as if from an uneasy sleep or dream; but often, as many sadly know, there is no return to life again. The essential nature of the disease seems to be such an excess of blood in the brain that its appropriate vessels or channels cannot contain it, and it is "extravasated," let out, upon the substance of the brain itself, and thus arrests the functions of life. Persons with short necks, who are "thick-set," corpulent, are almost the sole subjects of apoplexy, when not induced by falls, blows, shocks, and overdoses of certain drugs.

Apoplexy Avoidable.—Apoplexy is an avoidable disease, except in some cases of accidents, which we can neither foresee nor prevent; it is, essentially, too much blood in the brain. This blood is either sent there too rapidly, or, when there, is detained in some unnatural manner, the essential effect being the same. Whatever "excites the brain" does so by sending an unnatural amount of blood there; such as intense and long thought on one subject. Also all kinds of liquors, containing alcohol, whether ale, beer, cider, wine or brandy, excite the brain, and endangers apoplexy. So will a hearty meal, especially if alcoholic drinks are taken at the same time; going to bed soon after eating heartily, sleeping on the back, if corpulent, may bring on an attack any night; so will a hot bath, so will a

cold bath soon after eating. The ultimate effects of all opiates are to *detain* the blood in the brain, while the things just mentioned send it there in excess. The great preventives are warm feet, regular daily bodily habits, eating nothing later than three o'clock P.M., and the avoidance of opiates, tobacco and all that can intoxicate. In case of an attack send for a physician. Meanwhile, put the feet in *hot* water, and envelop the head with *cold* water; ice is still better. It is safer to live in a hilly than level country, in town than country. Winter is more dangerous than summer. The liability increases rapidly after forty years of age, greatest at sixty, when it gradually diminishes. Statistics seem to show that the most dangerous years are forty-eight, fifty-eight, sixty-six, while forty-six and forty-nine are almost exempt. The well-to-do are more liable than the laboring. Sudden changes of weather promote attacks. Let the liable, especially, live in reference to these well-established facts.

Bathing.

All Should Bathe.—Every person should take a good wash, a thorough bathing, once a week, a thorough washing of the whole body with soap, water and a brush. Do not remain in the water longer than ten minutes, and keep in active motion all the time. Never bathe on a full stomach. The hands, face, neck, throat, arm and armpits should be washed once a day.

Spring is the time of the year that baths are needed most. Warm weather coming on induces more sensible and insensible perspiration than in winter time, and hence the importance of more frequent baths. The *Sanitary World* says: "Warm baths will prevent the most virulent diseases. A person who may be in fear of having received infection of any kind should take a warm bath, suffer perspiration to ensue, and then rub dry. Dress warmly to guard against taking cold. If the system has imbibed any infectious matter, it will be removed by resorting to this process, if done before the infection has time to spread over the system; and even if some time has elapsed the drenching perspiration that may be induced by hot water will be very certain to remove it.

In cases of congestion, bilious colic, inflammation, etc., there is no remedy more certain to give relief. In

cases of obstinate constipation, also, wonderful cures have been wrought. For sore throat, diphtheria and inflammation of the lungs, a hot compress is one of the most potent remedies."

The trouble sometimes is to find conveniences for a bath, especially at school. The pupils at our Soldiers' Orphan Schools bathe in pickle barrels, six of them being "dumped in" at a time, and the same water used for about twenty-five and one towel for fifty. Such bathing is worse than none. In many of the normal schools, boarding schools and colleges there are no provisions whatever for bathing. Many homes of our land have none, and the worst of the matter is that, in consequence, many persons have not had their entire bodies bathed since the days of their babyhood. They live in spite of the fact that the crust of ages has accumulated on their bodies, but many of them live miserably, complaining, aching, suffering and breeding disease all the time.

Luxury of the Bath.—O what a luxury a good warm bath, followed by a thorough rubbing with a coarse towel is! Be determined to have it. You can get it even when at school, or in a home where there are not the conveniences of a bath tub and warm water.

An alcohol lamp and pan with a handle to it will answer for the purpose of heating water where it cannot be had in the kitchen. The entire arrangement will not cost fifty cents. In almost any school or family, however, a wash-basin full of hot water can be had. A

sponge, a good soft Turkish wash rag, a rough towel and a warm room will constitute your bathing facilities. With these, if you have no better conveniences, bathe your entire body at least once or twice a week, wherever you are, in school or at home, *domi militaeque*, and you will be surprised at the store of health and comfort received. It will be value received in full.

Necessary to Health.—Among all the appliances for health and comfort to mankind, we may safely say there is nothing so well known, so useful and withal so comforting and yet so little practiced, so carelessly and thoughtlessly neglected as judicious bathing. The skin of the human body, from head to foot, is a network of pores which ought always to be kept free and clear of obstructions. These pores are the openings into minute tubes or channels, which lead through unseen meanderings into the sanctum of life within.

To those blessed with good health, a bath as a common sense appliance, gives thrift and growth to healthy functions, a brightness and delightful serenity, a clearness of mind and buoyancy of spirit. It is certainly a blessing to both mind and body. For the mental worker it is a nerve tonic. A thorough immersion in water of proper temperature will calm and give strength and tone to his whole system. The indoor laborer who gets but a scanty supply of fresh air, needs a bath to obtain those invigorating elements so common in the open air.

The outdoor laborer—especially the farmer—who

works with heroic energy all day long, unavoidably gathers on the entire surface of his body a complete prison wall of dust and thickening, gummy perspiration; and when his day's work is done he needs then, more than any other thing, not only a wash but a good, luscious, *full bath* to fit him for a clean bed and a refreshing sleep.

The glutinous mass of perspiration, dust and filth, which gathers on the surface of the body naturally covers and clogs the pores, and often enters them and poisons the system. To remove that filth frequent ablutions and occasional immersion in water are exceedingly desirable and usually indispensible to health and comfort; consequently every family should have a convenient bath—and a full bath, too—of some kind, not only for general neatness of person, so desirable to every individual of taste and culture, but as a means of preserving health, and in many cases, especially under the advice of a good physician, as the safest, pleasantest and one of the most powerful and efficient means of combating disease. Baths assist in curing any disease. Directed by good judgment and wise counsel, a bath is a valuable auxiliary to other remedies, and it can be used when internal remedies cannot. In the long catalogue of diseases to which flesh is heir, scarcely one can be named in the treatment of which a bath is useless. In an emergency, which often happens when least expected, as in cholera, cholera infantum, cholera morbus, cramps, fits, etc., a

pliable, portable bath which requires but little water, ready at just the right time, may save some precious life.

The Blood.

Purifying the Blood.—Natural means are the best for purifying the blood in cases where the individual is in good health, and so able to employ them. To "physic" for this end—whether with the old-fashioned "sulphur and molasses," or "root beer," or with any of the more modern "tonics" or "blood purifiers"—is a mistake; as it is, also, to be bled, which in cases of feebleness may be absolutely dangerous. The way to purify the blood is not by putting something into it, or by draining it impartially, but by taking out of it the impure substances which it contains. Nature has provided five organs for doing this—the lungs, skin, kidneys, liver and bowels.

Why Impure?—The blood becomes impure for one or both of two reasons: 1. Something impure has been put into it. 2. The five excretory organs just mentioned have not been sufficiently active. In the first case alter your diet, eschewing pasty, "heavy" foods and everything unhygienic. In both cases set the excretory apparatus in full operation. To do this for the lungs take abundant exercise in the open air. The more vigorous this is, short of exhaustion, the better, for the quicker and deeper will be the respiration and the greater will be the amount of impurity, in consequence, thrown off. Remember that a person walking

at the rate of three miles an hour breathes three times as much air as if he were sitting still, and that in more active exercise the benefit received is in proportion.

To quicken the action of the skin get up a good sweat. Take hot drinks and wrap up in blankets. Try a hot bath two or three times a week. Friction, too, applied to the skin after bathing, is of great assistance. If robust, though it would perhaps be an extreme measure, it might be well, and could not be dangerous, to take a Turkish vapor bath every day for a while.

The kidneys, liver and bowels may be stimulated to full action by drinking hot water in abundance—say from twelve to twenty glasses a day. No better means exists for accomplishing this end. Not only does it stimulate the organs just named, but it cleanses the stomach, liver and kidneys, and the water permeating the whole body, drains impurities from it as it passes off by the pores.

Hot baths take water—sometimes as much as two pints of it—and, with it, impurities, out of the blood, which induces thirst, and so increases the water drinking, which in turn supplies the water lost, as well as increases the sweating. The exercise produces sweating, which causes increased water drinking; it also invigorates the action of the diaphragm, which squeezes the old bile out of the liver, and that again augments the water drinking. Thus each means used assists the others, and the entire treatment gains cumulative impetus thoroughly to do its work.

Croup.

How Croup Originates. Life Saving Suggestions.—In the early part of spring many children die of croup, which is simply a common cold settling itself in the windpipe and spending all its force there.

The very sound of a croupy cough is perfectly terrible to any mother who has ever heard it once. In any forty-eight hours it may carry a child from perfect health to the grave. Croup always originates in a cold, and in nine cases out of ten this cold is the result of exposure to dampness, either of the clothing or of the atmosphere, most generally the latter, and particularly that form of it which prevails in thawy weather, when snow is on the ground, or about sundown in the early spring season. At midday the bright sun lures the children out of doors, and having been pent up all winter a hilarity and a vigor of exercise are induced much beyond what they have been accustomed to recently. They do not feel either tired or cold; but evening approaches, the cool of which condenses the moisture contained in the air, this rapidly abstracts the the heat from the body of the child, and with a doubly deleterious impression; for not only is the body cooled too quickly, but by reason of the previous exercise it has been wearied and has lost a great deal of its power to resist cold, hence the child is chilled. Exercise has

given it an unusual appetite, a hearty supper is taken, and in the course of the night, the reaction of the chill of the evening before sets in and gives fever; the general system is oppressed, not only by the hearty meal; but by the inability of the stomach to digest it, and fever, oppression and exhaustion, all combined very easily sap away the life of the child.

The first night the child wakes with a cough, but it seems to pass off again. The child runs about the next day and is perfectly well, but the next night the symptoms are more decided, and the third night the child dies. All this might have been averted, if from the first night the child had been kept in a warm room, warmly clad, the bowels kept free, and nothing eaten but toast with tea, or gruel, or stewed fruits.

Children should be kept warmly clad, at least until May, as in the depth of winter; they should not be allowed to remain out of doors later than sundown, when they should be brought into a warm room, their feet examined and made dry and warm, their suppers taken, and then sent to bed, not to go outside the doors until next morning after breakfast.

Keep little children indoors the whole of all rainy, thawy, raw, windy days, and always until after breakfast and from and after one hour before sundown.

Remedies.—Common sense dictates the instant sending for a physician in case of an attack of croup, but the moment a messenger is dispatched have three or four flannels, dip them in water as hot as your hand

can bear and apply them successively to the throat of the child, so as to keep the throat hot all the time, so as to evaporate the matters which if retained cause the clogging up inside which soon stops the breath. Hot water should be constantly added to that into which the flannels are thrown, so as to keep it all the time hot. Keep the water from dribbling on the clothing of the child, and see to it that the feet are dry and warm. Most likely the child will be out of danger before the physician arrives, and it is pleasant to turn over the responsibility on him. Loose cough, free breathing and a copious discharge of phlegm indicate relief and safety.

Colds and Pure Air.

VALUABLE SUGGESTIONS.

Catching Cold is the rule, those who escape constitute the exception. Why should it be so? The good Lord doeth all things well, and he certainly has as little pleasure in making us uncomfortable, or punishing us with bad colds, as he has in the death of the sinner. It is not the good Lord, nor the good land and climate that he has given us, nor the weather with its copious rainfalls, for which we should be exceedingly glad, that are to be blamed for our indiscretions, but it is our own conduct that is at fault. For, as Bishop Heber has taught us to sing, of Ceylon's isle:

> "Where every prospect pleases,
> And only man is vile,"

So in reference to our complaining about suffering from the weather and the climate, the true source of complaint must be sought in ourselves.

Result of Imprudence.—Climate is made the scapegoat of personal imprudence. If people will overheat their houses or places of business in winter, if they choose to sit for an hour at a time, overcoated, shawled, hatted and india-rubbered, in one another's oven-like offices, and to plunge then, bathed in perspiration, into an open-air temperature below the freezing point, what right have they to charge the climate with their

coughs, influenzas, sore throats and consumptions? Nobody could be pitched out of the tropic of Capricorn into the frigid zone two or three times a day without damage to his breathing apparatus.

Practically, so far as difference of temperature is concerned, thousands of us pass through this sort of ordeal almost every winter's day. And yet sufferers from diphtheria, pneumonia, bronchitis, asthma, etc., generated by their own insane neglect of the most obvious sanitary rules, are taught to believe that they are the victims of climatic influences.

Keep the thermometer down to 70° in your stores, counting houses, school rooms and domiciles from November till April; never sit in rooms heated even to that moderate degree in your beaver cloaks, furs, and promenade headgear; warm yourselves with exercise instead of immoderate artificial heat; and don't be afraid to let the outside air brush the inside of your dwellings, etc., with its healthful wings, at least twice every twenty-four hours. Do this, all ye who are "subject" to coughs and colds that keep you barking and snuffing the winter through, with a deadly-lively glimpse of consumption in prospective, and we venture to say you will think better of this "terrible climate" next spring than you do at present.

A normal condition of the skin is the chief protection against a cold. Three-fourths of the sufferers from catarrhal pneumonia or chronic bronchitis are found to be in the habit of neglecting the skin. Their skin has

become degraded, and is no longer a protective covering for the body.

The skin needs to be hardened by the use of the flesh-brush, the cold douche, the air bath, and by frequent change of underclothing. Active exercise needs to be added, to keep the tissues from clogging. The time to cure the patient is before he gets the cold.

Do Not be Afraid to Go Out of Doors because it is a little colder than usual. The cold air will not hurt you, if you are not bathed in perspiration, and are properly protected and take exercise enough to keep the circulation active. On the contrary, it will purify your blood, strengthen your lungs, improve your digestion, afford a healthy, natural stimulus to your torpid circulation, and strengthen and energize your whole system. The injury which results from going into a cold atmosphere is occasioned by a lack of protection to some part of the body, exposure to draughts, or from breathing through the mouth.

How long, oh, Lord! how long before the people will learn that the person who bundles himself or herself up in heavy clothing and thick bandages to escape colds and kindred inconveniences is the person who is most likely to catch cold and be troubled generally by the ills he attempts to escape? In winter one often sees the foolish young man who will not go into the cold air unless his neck is muffled in a silk handkerchief, or shielded from the wind by the turned up coat collar. And that person always has a cold. Just about this

time of the year, when colds are plentiful enough, you'll notice that the people who catch them are the people who are forever exhibiting the utmost anxiety lest they will catch them, and adopting elaborate precautions against the dread disorder.

Well, here is something that is true. The way to keep cold off is to strengthen those parts that are usually the seats of disturbance, and the way to strengthen those parts is by exposure. That sounds like bad advice, but it isn't. Do not be afraid to let the wind get a good crack at you, and let it strike often, and you will not have so many colds as the fellow that is always muffled.

The people who are constantly bundled up, when they go out, are the ones that catch cold by the least breath of cool air striking them. They are all the time cooped up in a temperature of 70 to 80, without any ventilation. They keep their hats on in an overheated room, and don't remove their rubbers in the house, sitting for hours with them on. The least exposure gives them a cold. No wonder.

Don't be afraid of a blizzard. Wrap up warmly and face it with a will. Keep moving, no matter how cold, walk a mile or two, and you will feel first rate when you get into the house.

The immediate cause of a vast number of cases of disease and death is a "cold;" it is that which fires a magazine of human ills; it is the spark to gunpowder. It was to a cold taken on a raw December day, that the

great Washington owed his death. It was a common cold, aggravated by the injudicious advice of a friend which ushered in the final illness of Washington Irving. Almost any reader can trace the death of some dear friend to a "little cold."

Causes of Colds.—The chief causes of cold are two: 1st, cooling off too soon after exercise; 2d, getting thoroughly chilled while in a state of rest without having been overheated; this latter originates dangerous pleurisies, fatal pneumonias (inflammation of the lungs,) and deadly fevers of the typhoid type.

Persons in vigorous health do not take cold easily; they can do with impunity what would be fatal to the feeble and infirm. Dyspeptic persons take cold readily, but they are not aware of it, because its force does not fall on the lungs, but on the liver through the skin, giving sick-headache; and close questioning will soon develop the fact of some unusual bodily effort, followed by cooling off rapidly.

A little attention would avert a vast amount of human sufferings in these regards. Sedentary persons, invalids, and those in feeble health, should go directly to a fire after all forms of exercise, and keep all the garments on for a few minutes; or, if in warm weather, to a closed apartment, and, if any thing, throw on an additional covering. When no appreciable moisture is found on the forehead, the outer-door garments may be removed. The great rule is, cool off very slowly,

always, after the body has in any manner been heated beyond its ordinary temperature.

Neglecting Colds.—Every intelligent physician knows that the best possible method of promptly curing a cold is, that the very day in which it is observed to have been taken, the patient should cease absolutely from eating a particle for twenty-four or forty-eight hours, and should be strictly confined to a warm room, or be covered up well in bed, taking freely hot drinks. It is also in the experience of every observant person, that when the cold is once taken, very slight causes indeed, increase it. The expression, "It is nothing but a cold," conveys a practical falsity of the most pernicious character, because an experienced medical practitioner feels that it is impossible to tell in any given case, where a cold will end; hence, and when highly valuable lives are at stake, his solicitudes appear sometimes to others to verge on folly or ignorance.

The symptoms of cold in a patient are chills, without lowering of the temperature, however. The temperature will often rise two degrees while the patient is undergoing a chill. Colds frequently result from wearing slippers and thin stockings. No convalescent patient should be thinly clad about the extremities. They all should wear woolen underclothes, because wool absorbs moisture, which is condensed in the fibers of the cloth, and so heat is returned to the body again. Everybody should wear woolen underclothes through

the winter and many invalids should never leave them off.

A severe cold, and perhaps an attack of pneumonia, may be prevented if premonitory symptoms are heeded. A chilly sensation along the spinal column, a cold clammy feeling across the chest, are sure indications that a severe cold is trying to settle in the system.

Colds are Caught more frequently by being in rooms, of which the temperature is too high, than where it is not high enough. Both are bad, but the former is the greater evil. Halls, Sunday-school rooms, churches, and crowded apartments, in general, are often too warm. Seventy degrees is sufficiently warm for any one, better have it a few degrees lower than higher.

In passing from a warm room into the open air the body should be kept as nearly as possible at the same temperature, either by active exercise, or by putting on extra clothing. School children should be taught this by every teacher. To let them run out from a heated room, with no extra clothing on, and heads uncovered is suicidal. The mouth should be kept tightly shut in passing from a warm room into cold air.

Worse than Herod.—Children are killed by the hundreds of thousands every year by parents and teachers. Herod killed several hundred children, in trying to find the babe of Bethlehem, nineteen centuries ago. We denounce him as a great sinner and yet the American people who kill off their children by the

scores of thousands annually are saints and go to church and Sunday school, and pray most earnestly, and sing the songs of Zion most pathetically. Children are sent to school with feeble, nervous constitutions at the age of six, when they ought to be out in the open air, romping and playing and getting all the health they can. They should not be confined to school a single day, before they are eight or nine. They are urged on by ambitious parents and teachers, to wade through problems in arithmetic and even grammar before they are ten, when they should not have anything but oral exercises and reading. These children, hot-house plants, forced in their mental growth, soon droop, fail in health and die, while the dull ones, who have their out-door amusement and skipped school, become the useful men and women, because they have the bodily health and vigor.

How to Avoid Colds.

The old and the young alike are subject to colds at all times and places, and a few words on how to avoid colds from the best medical authorities, and founded on sound philosophy are in place.

Physiologists have said that if a few drops of the blandest fluid of nature are injected into a blood vessel against the current, death is an instantaneous result.

Millions of canals or tubes from the inner portion of the body, open their little mouths at the surface, and through these channels, as ceaseless as the flow of time, a fluid containing the wastes and impurities of the system is passing outwards, and is emptied out on the skin ; ordinarily, it is so attenuated, so near like the air, that it can not be seen with the naked eve, but extraordinarily, under the influence of increased natural or artificial heat, as from exercise or fire, this fluid is more profuse, and is seen and known as "the sweat of the brow"—perspiration.

This fluid must have exit or we die in a few hours. If it does not have vent at the surface of the body, it must have some internal outlet. Nature abhors shocks as she does a vacuum. Heat distends the mouths of these ducts, and promotes a larger and more rapid flow of the contained fluid ; on the other hand, cold contracts them, and the fluid is at first arrested, dams up and re-

bounds. If the purest warm milk, injected against the current of the blood, kills in a moment, not from any chemical quality, but from the force against the natural current, there need be no surprise at the ill effects of suddenly closing the mouths of millions of tubes at the same instant, causing a violence at every pin-head surface of the body. If these mouths are gradually closed, nature has time to adapt herself to the circumstances by opening her channels into the great internal "waterways" of the body, and no harm follows. Hence the safety of cooling off slowly after exercise or being in a heated apartment, and the danger of cooling off rapidly, under the same circumstances, familiarly known by the expression "checking the perspiration."

The result of closing the pores of the skin is various according to the direction the shock takes, and this is always to the weakest part; in the little child it is to the throat, and there is croup or diphtheria; to the adult it is to the head, giving catarrh in the head, or running of the nose; to the lungs, giving a bad cold, or, if very violent, causing pneumonia or inflammation of the lungs themselves; or pleurisy, inflammation of the covering of the lungs; to the bowels causing profuse and sudden diarrhœa, or to the covering of the bowels, inducing that rapid and (often) fatal malady known as peritoneal inflammation; if the current is determined to the liver, there is obstinate constipation, or bilious fever, or sick headache. Hence a "cold" is known by a cough, when perspiration is driven inward, and is di-

rected to the lungs; by pleurisy, when to the lining of the lungs; by a sick headache or bilious fever, when to the liver, etc.; diarrhœa or constipation when to the bowels and liver.

To avoid bad colds, then it is only necessary to avoid closing the pores of the skin, either rapidly, by checking perspiration, or slowly, by remaining still until the body is thoroughly chilled, that is, until the pores are nearly or entirely closed by inaction in a cold atmosphere or room. In the matter of health, these suggestions are of incalculable importance.

"If a cold is serious, a physician should be called. The first thing to do is to draw the excess of blood from the affected part by soaking the feet in hot water. The action of the skin can be restored and the blood brought back by a hot bath, 'wet pack,' nitre, or Dover's powders. To eliminate the watery element from the blood give a laxative."

How to Cure a Cold.—The moment a man is satisfied he has taken cold, let him do three things:

First, eat nothing; second, go to bed, cover up warm in a warm room; third, drink as much cold water as he can, or as he wants, or as much hot herb-tea as he can; and in three cases out of four he will be almost well in thirty-six hours.

If he does nothing for his cold for forty-eight hours after the cough commences, there is nothing that he can swallow that will, by any possibility, arrest the cold, for, with such a start, it will run its course of

about a fortnight in spite of all that can be done, and what is swallowed in the mean time in the way of food, is a hindrance and not good.

"Feed a cold and starve a fever" is a mischievous fallacy.—A cold always brings a fever; and a cold never begins to get well until the fever subsides; but every mouthful swallowed is that much to feed the fever; and but for the fact, that as soon as a cold is fairly started, nature, in a kind of desperation, steps in and takes away the appetite, the commonest cold would be followed by very serious results, and in frail people would be always fatal.

These things being so, the very fact of waiting forty-eight hours gives time for the cold to fix itself in the system; for a cold does not usually cause cough until a day or two has passed, and then waiting two days longer gives it the fullest chance to do its work before any thing at all is done.

The following is the advice, given by a prominent doctor, for getting rid of a cold:

Good Advice.—When the first symptoms manifest themselves is the time for action, and this should consist of a hot mustard foot-bath before going to bed and a hot draught of milk. The covering of the body should be linen and wool, the former in the way of the sheet and the latter in the blanket.

No drug can nor will do the service of preventive measures. The very best preventive of cold is cold water. Bathe the neck and chest every morning with

cold water, and rub dry with a rough towel until the flesh is of a pink hue. A cold sponging (all over the body) is better, but often too little spare time in the morning forbids such a luxury. Many little ones may be saved from croup if attention be given to the cold sponging.

Simple Remedies.—No attempt to get up an active sweating should be made. The foot-bath and the warm drink will give a sense of warmth and facilitate the natural excretion of materials which should pass away by the skin, and any effort to aggravate this will be not only superfluous, but harmful.

The blanket should never be worn next to the night robe, and should not be so thick as to confine the air next to the body. It is, indeed, often advisable to lighten the covering of the feet, and to preserve a certain amount of weight over the loins, and to have the shoulders protected from the external surroundings in general.

The last measure is not to be underrated; a sensitive lung carries with it susceptibility to take to itself everything that could possibly affect it to its detriment. Lung diseases belong to sensitive persons, and may or may not be the sequence of a "cold." The majority of them, however, can be traced to imprudence in dress and exposure. Pneumonia, pleurisy and consumption are partners of carelessness in the dressing of the chest and back, and "colds," which might stop at the throat by a little prudence, are their apprentices.

Avoid too much Medicine.—If you have unconsciously contracted a cold and want to get relief from it, you must, in the first place, avoid too much medication. A properly clad skin and a clear digestion ought to shorten the life of a "cold." If a little comfort can be secured by wearing a light covering on the head during indoor hours it should be respected.

Ventilation of apartments comes in for a slight amount of attention, and it should be simply sufficient to furnish fresh air and not to produce currents which can be appreciated. Nothing is more fallacious than the belief that health is promoted and life prolonged by air in excess, and this is proved by tombstones.

Don't take Cold.—Best of all, avoid taking a cold. Do not expose yourself. Hold on to flannels and underwear. Avoid getting chilled. Change damp clothing at once to dry. Keep your feet warm and dry. Do not check prespiration by suddenly cooling. Keep out of draughts. Keep your mouth shut when you go out of doors, and especially do not think because we have a few warm days, that now you can act as in summer, stick to your fires, your clothing, and your cold weather habits, a little longer.

You say, "that is all talk." "I can't do it," a person can't take care of himself! Can't observe the laws of health! No, but you can afford to pay a $50 doctor bill. You can afford to stay in the house and in bed a month or two when you are sick. You can afford to die prematurely on account of utter disregard of

God's laws. All these you can do, because you will be compelled, when you refuse to exercise your common sense. But which is better? *Sapienti sat.*

Don't Neglect a Cold.—Ah! my friend, you should not think lightly of a cold, with the many examples and warnings constantly staring you in the face of how colds lead to serious consequences. A cold is a fever, and a fever is a serious matter. It may, and it may not pass off as easily as you hope. George Washington, Chief Justice Waite, Roscoe Conkling and multitudes of others made light of a cold, but it did not of them.

If you have caught a cold, do not delay a single hour to rid yourself of it. Let no business, no engagement, nothing whatever prevent you from giving it attention. Don't for a moment suppose that you can force yourself that you are an exception to the human family, and that the Lord will perform a miracle for you. One of your first duties is health. God has said "Thou shalt not kill," and that means, among other duties, "get rid of your cold at once." It is better to remain in bed one day, than go through a sixty days' siege of fever. The pores of your skin are closed, steam open, and induce perspiration at once, so that your bodily functions can go on again in the usual way.

Coughs.

A Cough is Nature's Safety Valve.—As long as a person can cough and expectorate he will not die. Consumptives often cough almost incessantly. As long as they can do so they don't die. If, however, the cough subsides, they die in a few days, as now the matter which was brought up by coughing fills the lungs, the air being prevented from entering the small vessels, the blood is no longer purified and death ensues. Hence, it is that the last stages of consumption are so deceptive, the patient believing that he is much better, because his cough is stopped, when he is really in the greatest danger. The folly of taking something to stop the cough is, hence, apparent. If anything is taken it should be something to promote coughing, so that the lungs may be cleared of the matter in them.

Coughing at Night.—Healthy persons are sometimes troubled with coughing at night. They wake up with a violent cough and are prevented from falling asleep again for a long while. This coughing is caused by lying with arms uncovered, thus cooling the skin, contracting the pores, and driving in upon the lungs that which oppresses and irritates. This kind of cough often requires only the covering up of the arms till they become warm. To take something for stopping a cough of this kind is not only a great folly, but highly

injurious to health. Paregoric, laudanum, trochees, drops, lozenges, etc., will ease the coughing, stop it entirely, but to the great injury of health, possibly, inviting other diseases, such as pleurisy, pneumonia and dangerous hemorrhages. It is like painting one's face to hide the dirt, instead of washing it clean. The anodyne, trochee, or tablet only smothers the cough.

Children's Coughs.—Persons, particularly children, rushing out of a heated room, filled with a vitiated atmosphere, such as our school rooms often are, when overcrowded, are liable to contract a cold, and a coughing spell is the result. A troublesome cough sticks to them for months, they being unable to shake it off. The best thing is never to be guilty of so unwise a practice, and it is particularly the teacher's duty to use every honorable means of preventing it. But, when once a cough has settled itself on the system, it is not to be cured by the use of cough medicines and patent preparations. These contain opium, and though they may plaster over and relieve for a short time, they only enervate the system, and protract the seige which it wages against the enemy. Work off the cold thus contracted, by active exercise, which induces perspiration, and causes the pores to open, so that the impurities may be thrown off. The cough will then stop of itself.

Cold Feet especially on retiring in a cold room, in a cold bed, produce coughing in a short time. Never go to bed with cold, clammy feet, nor allow a child to sit in the school room with damp stockings and cold

feet. If you do, a serious cough and cold will be the result in less than twenty-four hours, and not only a cough, but some other serious illness. It is sheer suicide to permit this.

The croupy cough of children must be especially watched. When it is observed in school, the child should be at once sent home, and the attention of the parent called to it. When at home it should be put to bed and wrapped up warm. Death may come within forty-eight hours, if the cough is not attended to. Call a physician. at once.

The Deadly Cold Bed.

"The Spare Room."—If trustworthy statistics could be had of the number of persons who die every year, or become permanently diseased from sleeping in damp or cold beds, they would probably be astonishing and appalling. It is a peril that constantly besets traveling men, and if they are wise, they will invariably insist on having their beds aired and dried, even at the risk of causing much trouble to their landlords. But this peril resides in the home, and the cold "spare room" has slain its thousands of hapless guests, and will go on with its slaughter till people learn wisdom. Not only the guest but the family often suffer the penalty of sleeping in cold rooms and chilling their bodies at a time when they need all their bodily heat, by getting between cold sheets. Even in warm, summer weather, a cold, damp bed will get in its deadly work. It is a needless peril, and the neglect to provide dry rooms and beds has in it the elements of murder and suicide. It is better to sleep in one's clothes than to run the risk of taking a death cold in the damp bed. This precaution should be taken when you have to use a bed the owner of which does not know its danger. Of course you will not be guilty of inflicting any such barbarism on any of your guests.

Catarrh.

There are several distinct forms of catarrh, which may be classed under two general heads, the dry or non-discharging, and the mucous or flowing catarrh, of which the latter is by far the more prevalent.

A Cold in the Head, strictly speaking, is a catarrh, and if suffered to run its course without interruption, may assume all the worst features of this troublesome disease, and finally become so thoroughly seated as to occasion no little difficulty in its dislodgment. It first attacks the mucous membrane of the nasal apertures, inflaming it and causing a continuous watery flow, thence extending downward to the air passage leading to the chest, causing constant irritation, and finally settles upon the lungs with a deadly grip. Its worst symptoms are attached with headache, impaired hearing, sight and memory, loss of appetite and general debility. We have known cases where the loss of smell as well as taste were attributed to this cause.

Many persons have a vague notion what nasal catarrh is. Some think that the ordinary running from the nose in a case of cold is nasal catarrh. In a certain sense, in the original sense of the word it is. Catarrh is derived from the Greek *Kata*, down, and *Rhea*, to run, just as *diarrhea* is from *Dia*, through, and *Rhea*, to run.

Different Kinds of Catarrh.—Catarrh is a name given by the Greeks to ailments which throw off fluids in unnatural quantities; it means a "flowing from." These catarrhs are always originated by a cold taken in some way; and upon whatever part of the system the cold "falls," it is called a catarrh of that part. Hence, "catarrh of the head" when the eyes water a great deal; "nasal" catarrh when the "nose runs;" "catarrh of the chest" when a cold settles on the lungs and a large expectoration follows. Some persons who have "weak bowels" always have diarrhea; thin, watery, light-colored passages, or catarrh of the bowels, when a cold is taken.

The Action of a Catarrh is curative, and should be let alone, for it is nature's effort to carry off the disease; to wash it away as it were. If nature were only left to herself in these cases, an incredible amount of suffering would be prevented, especially if nothing were eaten until relieved but bread and water; and if two or three hours in the forenoon and afternoon were spent in the open air, in bodily activities sufficient to promote and keep up a very gentle perspiration. But when there is a cough, or a troublesome running at the nose, or a watering of the eyes, with a fullness about the head and all over the body, indicating that a general cold has been taken, there is almost a mania for "taking something." If the person has some medical knowledge, and even a small amount of common-sense, leading him to wait on nature, while he endeavors to aid her as just indi-

cated, every second person he meets, exclaims, "Why don't you do something for it?" and he is brave indeed who resists steadfastly to the end.

Dangerous Remedies.—A lady had a troublesome itching and running of the nose, and being advised to snuff up cold water freely, she did so and was "cured" in a day; but in twenty-four hours she nearly died of asthma; for, although the "flowing" from the nose was checked, the disease fell upon the lungs; nature would have a vent somewhere.

A gentleman complained of a cold in the head, with sick headache; some one advised him to have buckets of cold water poured on top of his head, which was followed by a welcome relief; the next day he complained of a sore throat, which troubled him as long as he lived.

A gentleman had a cold in the head which affected his hearing; it was ignorantly tampered with, and apparently cured; but the eyes began to complain shortly after, to remedy which he spent two years and a thousand dollars under the most eminent Allopathic and Water-Cures, with no efficient result; and his eyes are as troublesome to-day as they were some ten years ago. All "flowings," "runnings," etc., are the result of what, in common parlance, is a "humor in the blood," and nature is endeavoring to "run it off," but our reckless and ignorant interferences thwart her in her efforts, and bring on greater calamities.

Use Care in Stopping Diarrhea.—In the diar-

rhea of children, summer complaints, etc., which so often arise from the colds settling on the bowels, paregoric is given, and "soothing syrups," (in all cases made of molasses and laudanum, *never* made without sugar and opium.) The great effort of ignorance is to "stop the diarrhea." This is done; the parents are charmed, write out a certificate in great gratitude; this is published in the morning papers of the same week, as also in another column the death of the "cured" child of "convulsions" or "water on the brain."

The cough of consumption, and the large amount of glairy or multi-colored "matter" discharged from the lungs in bronchitis, are the curative "flowings," catarrhs of nature, and the checking of them by cough-drops, lozenges, troches, syrups, snuffs, etc., *always*, ALWAYS, ALWAYS makes death more certain, more speedy and more dreadful. In all catarrhs, in all flowings, keep the bowels free, keep up a very general perspiration, and eat but very little for forty-eight hours, and if not better send for a respectable physician. Annual sneezings and nose runnings are of this nature, preventable by previous judicious depletions.

In all catarrhs, chronic or acute, long or short, a wise physician will do nothing to stop or repress but will use means to cause a greater activity of the liver, and prescribe an unstimulating and cooling diet, warmth and judicious exercise.

For ourselves we would give physic a wide berth. If we had a "flowing from," a catarrh, a cold, all of

which mean precisely the same thing in nature and essence, we would let it flow, and thus have the system relieved of an enemy, whose presence it will not tolerate. But there are three other things which may be done to very great advantage, because they would expedite the cure.

Common Sense Remedies.—1. Keep the body, especially the feet, very comfortably warm by every available means.

2. Take a good deal of exercise in the open air, to the extent of keeping up a very slight perspiration for several hours during the twenty-four.

3. Live on light, loosening, cooling food—moderate amounts—such as water-gruel, crust of bread, stewed fruits, ripe berries, and nothing else, until entirely well.

Cholera.

Asiatic Cholera, as first known in this country in 1832 and '33, is chiefly a disease prevailing in warm weather, or rather in a warm atmosphere, for it can be created at any season, and in the coldest latitudes, by combining the proper degrees of the three essential requisites, to wit, moisture, vegetable decay, and a regular heat, exceeding eighty degrees. The great and distinguishing feature of cholera is a copious, frequent, and painless discharge from the bowels of a substance almost as thin as water, with a whitish tinge, as if rice had been washed in it, or as if a little milk had been dropped in it. When this occurs the patient soon begins to perspire profusely, the skin assumes a leaden hue and shrivels up, the nails become blue, insufferable cramps come on, and the victim's death occurs in a few hours with the most perfect calmness, in the fullest possession of all the faculties, and absolute freedom from every pain.

Important about Cholera.—Three things ought to be known, in reference to cholera, by every human being:

First. The writer has never known a case in which it was not preceded, for one, two, or more days, by the bowels acting twice, or oftener, in every twenty-four hours; universally styled "the premonitory symptoms."

Second: A cure is impossible under any conceivable circumstances, without absolute quietude of body, on a bed, for days together; the time of confinement being shortened, in proportion to the promptitude with which the quietude is secured, after the first action of the bowels has taken place, which gives a feeling of tiredness, and, on sitting down, a sensation of rest and satisfaction.

Third: When the patient ceases to urinate he begins to die, and its resumption is a certain index of recovering health, always and infallibly.

One of the usual attendants of an attack of cholera is an unconquerable tendency to vomit. The very instant anything reaches the stomach, even if it is but cold water, it is ejected; the mildest food meets the same fate in such cases, much less will medicine find a lodgment, except one, and that it is impossible to vomit up if it once reaches its destination; that medicine has no taste, it is small in bulk, will retain its virtues for a quarter of a century, as the writer knows by personal experience and repeated observation. Unless it is in the very last stages, it is believed capable of arresting the disease nine cases out of ten—a pill made up of ten grains of calomel with a little gum-water; if the symptoms do not abate in two hours, double the dose, and let it work itself off; do nothing else, but let the patient be quiet and eat all the ice he may want.

Cholera Infantum.

Cholera Infantum (summer complaint) is the Herod of large American cities in this latitude during the summer season. In the city of Philadelphia it causes about one-twentieth of all the deaths for the entire year, and one-sixth of all the deaths of infants under two years of age; and this wholesale destruction of infant life takes place in the short space of two months. Continued high temperature, night and day, appears to be its essential cause. It is important, therefore, first to keep the child cool, and secondly, to keep its food (milk) cool. Infants at the breast are much less liable to be attacked than those brought up by hand. Therefore, nurse the baby through the second summer if possible. To accomplish the first object, allow the baby to drink freely of cool, not excessively cold, water; bathe it frequently in cool or lukewarm water two or three times a day if the thermometer is above 90°; keep it in the open air in the shade; take it into the country or out on the water as often as possible. Let it wear a very thin flannel undershirt, or if not this a flannel bellyband.

To accomplish the second, get your milk from a dairy where it is kept on ice, keep as little on hand as possible—and keep it on ice if possible. As soon as you get it, boil it for a few minutes and then add a ta-

blespoonful of lime water to every pint. If the child is siezed suddenly with diarrhœa, stop its milk at once, and feed it on raw white of egg, gelatine, barley water, and meat or chicken broth ; and do not give it milk again until the diarrhœa has stopped. If possible go away with it to the country at once, or, if you live in the country, go to the mountains. Change of air has saved thousands of children's lives in this disease. Never try to treat looseness of the bowels in a baby in hot weather yourself, but send at once for a doctor.

Cholera Morbus.

All of these well-known diseases occur principally during the summer and autumn.

Cholera morbus is caused by improper food and suddenly chilling of the body after exposure to great heat. Certain substances will produce it in certain persons, such, for instance, as veal, raw milk taken with fish, or shellfish, and all dishes cooked with milk, such as rice pudding, cream puffs, and even ice cream *when kept too long.* Unripe and overripe fruit, especially if taken with large draughts of ice-water, will also cause it. But sound, ripe fruit is a natural food in hot weather, and wholesome. Avoid becoming chilled during sleep. In a climate as changeable as ours, a light blanket should always be at hand, to be drawn up in case it suddenly becomes cold during the night.

Constipation.

Of Great Importance.—Next to sleeping, the item of most universal application is the proper regulation of the bowels. We will feel a thousand times repaid for writing this article, if every mother who reads it will begin, without a day's delay, to impress upon the mind of every child she has, from four years old and upward, that the omission to go to the privy every day, will never fail to accompany or precede nine-tenths of all the sickness of old and young.

Do not Trifle with Nature.—In four cases out of five, the foundations of life-long ailments, which embitter the whole existence, are laid in habits of constipation originating in the school-room—oftener, perhaps, in a late breakfast, which makes it necessary to hurry off to school, and in the excitement nature's calls are unnoticed, and may remain so until school is called, and time has been allowed for all to settle down quietly at their lessons. But then a recitation is called; then the child "must" wait until the lesson is over; after that the teacher may be too busy; next the child begins to calculate that it will soon be time for dismission. Thus, in one way and another, nature is baffled, but not with impunity; for just precisely in this or similar ways, habits of constipation commence in multitudes, old and young, every day, paving the way for some of the most

protracted, some of the most troublesome, some of the most painful ailments known to man. In the earlier stages, and most commonly, there is a complaint of cold feet, of headache, of chilliness, of want of appetite, of no inclination for breakfast of mornings, of dullness, of want of vigor, vivacity, animation; and the child goes off to school, or the adult to business, "more dead than alive," and all creation looks as blue as indigo. The child is fickle, fretful, peevish; the man sullen and *groany*; the woman—my stars! how she does make every body stand about! The servants huddle together in the kitchen, the children will be as mute as mice, and "father," if he has a mite of sense, will quietly edge himself off into all out-doors. If breakfast be taken at seven o'clock, or at seven and a half, during January and February, there need be no hurry for school, and there will be that leisure which allows of deliberate attention to nature's admonitions.

It is well worth while to be at very great pains to guard our children against falling into habits of constipation, when it is known that such habits lead to dysppepsia iles, fistula, bilious colic, sick headache, and that "nervousnes, or neuralgia" which make life intolerable to so many wives and daughters.

Remedies.—Hot water taken freely half an hour before bedtime is the best cathartic possible in the case of constipation, while it has a most soothing effect upon the stomach and bowels.

Fever and restlessness in children is frequently

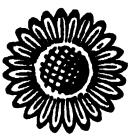
caused by indigestion. If you find the skin of the little one hot and dry, remember, if you can, what she ate for supper. Give the child a warm bath, then give it a cup half full of warm water to drink. In a few minutes the undigested food will be thrown off the stomach, and the child will soon be sleeping soundly. A dose of magnesia, half a teaspoonful, given in the morning before breakfast, will probably restore to the child its usual health, but, should fever and nausea continue during the day following the attack, send for a physician.

Watch the Children.—Constipation, Dyspepsia, and Brain-Fever are the three great dangers of children at school. When a child gets to pass a day or two without an action of the bowels, it becomes at once exposed to every disease that is abroad; if there is any prevalent sickness whatever, a constipated child is sure to suffer from it; while it takes cold from the slightest of all causes, and thus becomes tinder for diphtheria, scarlet fever, and putrid sore-throat. Hence, breakfast should be taken early, long enough before half past eight o'clock to allow them to have abundant time to go to the privy; and to promote this, they should be required to repair to the family-room or parlor, from the breakfast table; because by the mind being composed, the call of nature is more certainly noticed. It is a criminal neglect, not to clearly explain to each child, the inevitable ill results and danger to life, which attend going over twenty-four hours, without an evacuation of the bowels.

Contagion.

Do not take Chances.—It is all very well for children to attend school regularly and strive to be present at every session, but the teachers bid too high for this, and encourage them to go to school when there is danger in doing so alike for themselves and mates. To be absent from school, except in the most urgent cases, is considered a matter of reproach. In consequence, children are often permitted to attend when they should be at home and in bed. This is certainly wrong. It is, of course, well to stimulate in children a desire to make the most of their opportunities and to be in school every day when they properly can do so, but there is a reasonable limit, and harm is likely to result if it is passed. Parents should always give due heed to their children's complaints, and if they are at all ailing they should be kept from school until well. During the commencing stage of contagious diseases the symptoms are not defined, and do not indicate the nature of the trouble coming on. And oftentimes they are less severe in character than those which are present in simple transitory disturbances. It is true, also, that in the first stage of some of the most fatal contagious diseases the victims are a menace to all whom they encounter, capable as they are of transmitting the disease poisons to them. As, for instance, a child is coming down with

scarlet-fever. He has a little sore throat; his appetite is poor, or gone altogether; and he appears rather weak and languid. Most mothers would assume that he had caught a little cold, and they would not consider him sick enough to remain away from school. And yet, were he to attend he would be likely to infect some of his mates, for his disease is often contagious before the eruption is out enough to clearly indicate its nature. Teachers as well as parents, have a grave responsibility in this matter of disease. They should be closely observant; and children who appear languid and otherwise ailing, should be sent home at once, and their parents informed of the reason. Only by this exceeding care, without "taking any chances," can parents and teachers do their whole duty toward preventing the spread of contagious diseases in schools.



Consumption.

A Fearful Disease.—It is estimated that one person of every seven dies of consumption. How important, this being so, that every person should know something of the nature, cause and prevention of this disease, cure there being none, after it has advanced to a certain stage. In consumption the whole man is diseased, every drop of his blood is on fire. When all the fat and flesh are consumed (consumep—tion), (*Schwindsucht*), and there is no more oil to feed the flame, then the consumptive begins to freeze. Cold fingers, cold feet, until the heart is chilled, and death ensues. The forenoon brings a shivering chill, the after part of the day, a burning fever, and the night a cold, clammy drenching sweat. As soon as the poor, wasted, wearied body is laid in the bed, the cough begins, and it continues through the weary hours of the night, until exhausted, the patient falls into a troubled sleep. As long as he can cough he will not die, coughing is nature's safety valve, but when once the cough stops, when the consumptive becomes too weak to expectorate, he dies.

Symptoms.—Though there is consumption of the throat, bronchitis, and of the bowels, yet consumption of the lungs is usually meant, when the disease is spoken

of. A cough, pale face, wasted flesh, stooping frame, slow and careful walk, large round eyes, a waxen countenance is the picture of a consumptive. In consumption the whole person is diseased, every drop of blood is on fire. This ceaseless feaver burns out life. When all the fat and flesh are consumed, and there is no more oil, no carbon to feed the flame, nothing but skin and bone, the tendon and ligament, and strings, the patient begins to freeze. The cold chill of death creeps higher, until from cold hands and feet, the heart itself begins to chill, and death ensues. Blood spitting is one of the frightening accompaniments of consumption, and, yet those who do spit blood live longer by months and years, had not this symptom been present, since every time this happens the blood-vessels are unloaded, and, hence, the tubercles are diminished, and the fewer the tubercles, the greater is the hope of cure. Not one of a hundred thousand who spit blood bleed to death. The very moment blood-spitting is first observed not a single hour should be lost, a physician at once consulted, and in three cases out of four a permanent cure may be effected.

Consumption may be cured.—Ofttimes even, with care, a consumptive lives to become an old man. The friend and acquaintance of the author's childhood days, John Narrigong, of Richlandtown, Buck Co., Pa., was pronounced incurable by physicians, and told to drink milk freely and by next spring he would die. He lived yet *forty* years subsequently, and died at the age of seventy-five.

About Feebleness.—Feebleness does not necessarily cause consumption. The feeble feel the necessity of taking care of themselves and strengthening their bodies, and hence, the stout, robust and strong sometimes soonest fall victims to this disease. The author of this book was a small, puny boy, and it was prophesied by many, who knew him as such, that he would never live to see maturity, especially as his two uncles had died of consumption before they were twenty-one. He was convinced of the fact that he must do or die. He did. He plowed, he mowed, he spread manure, he chopped and sawed wood, "hollored," bellowed, and did a thousand things to develop and strengthen his body, and to-day, on the other side of fifty, he is "hale and hearty," with healthy lungs, while a score of his strong youthful companions fill consumptives' graves.

Sleeping in close rooms, insufficient food or clothing, being in damp, dark apartments, the want of full breathing give birth to consumption, so does the want of pure blood. Whatever has a debilitating effect on the body, whether of a mental, moral or physical nature, is the fruitful source of consumption.

The best place for studying, sleeping and spending your time, is in a high, dry, well lighted, well ventilated room. Near the earth, on the ground floor, or under the ground, the air is cold, raw, impure. In second, third, or fourth story rooms, the air is drier, purer, more rarified and more health-giving. The "study" of the clergyman, the "office" of the physi-

cian and the lawyer, the "library" of the family, the "sitting-room" of the household, the "place for studying" for the school child, and the "chamber" of the sleeper should be in the upper stories. The higher up, the more rarified the air; this greater rarity excites the instinct of our nature to deeper, fuller breathing, this kind of breathing is a preventive of consumption. Consumption is the scourge of civilized society, and destroys a sixth of our adult population. In the city of Mexico, 9,000 feet above the level of the sea, only three of one hundred die from consumption. In our larger cities, near the sea-level, eighteen out of every hundred die of consumption.

Every student, every sedentary person, everybody should try to have the room, in which much of his time is spent, as far above the ground as possible. Particularly get all the sun-light possible. Never close the shutters in day time. Always allow the sun to shine into your room, and especially the school room, the great portion of the day. The sun's rays assist powerfully in rarifying the air, and thus developing and expanding the lungs.

Out-door activities, causing a consumption of pure air and nutritious food, or, in other words, whatever builds up the system and makes good blood, is curative of consumption in its incipient stages. Always consult a good reliable physician, where there is suspicion of consumption.

Let every teacher require pupils to stand and sit in

an erect posture, breathe pure air, and take exercise as a preventive.

The earliest symptoms of Consumption are: A quicker pulse than ordinary, a paler face, easily chilled after eating, shortness of breath, wasting away of flesh, unrest on rising in the morning, a tendency to coldness of hands and feet, subject to colds, and a confirmed cough, which all means a want of vitality of general vigor. The pulse beats 68 to 72 times a minute in healthful adult life. When it is below 66 or over 72, continually, there is ground of apprehension that consumption is approaching.

To Prevent Spread of Consumption.—It is to a very large extent preventable. It is, though not generally known a contagious disease. Consumption, or pulmonary tuberculosis, is in every case caused by disease germs which grow in the lungs in enormous numbers. When a person is sick with this disease, these germs are coughed up in great quantities in the expectoration, and when this becomes dry and crumbles, or is trodden to dust, the germs float about in the air and are liable to be breathed into the lungs of any one. If the lungs of the person who does breathe them are poorly developed, or if the constitution is feeble, the germs are very sure to grow and cause the disease. Unfortunately we do not know how to kill them when they are once in the air passages. The best that can be done is to build up the system and strengthen the lungs by the use of cod liver oil, good food, and fresh air.

Much, however, can be done to prevent the spread of the disease by destroying the germs as completely as possible in every case.

(1) No person having consumption should ever spit on the floor or in the street. If handkerchiefs or bits of cloth are employed, they should at once be disinfected or burned. A good plan is tc use a small wide-mouthed bottle with a rubber stopper. The contents should be thrown into the fire and the bottle and stopper thoroughly scalded with boiling hot water every day.

(2) The dishes used by a consumptive should be at once scalded, and the unwashed underwear and bed clothing should be thoroughly boiled as soon as possible.

(3) When a person with consumption has diarrhea, the discharges from the bowels should at once be disinfected, as at this time they contain the disease germs. A good way is to add a half teacupful of fresh chloride of lime, or fill up the chamber vessel with boiling water.

(4) No one with consumption should sleep in the same room with another person, and the room occupied by a consumptive should be made thoroughly clean as often as possible.

(5) No mother with consumption should nurse an infant, and children ought never to be taken care of by a consumptive person.

Cough Medicines.

Dangerous Cough Medicines.—All intelligent physicians agree that patent cough medicines and nostrums are dangerous, particularly when administered to children.

All medicines sold for coughs, colds, consumption, and tickling in the throat, contain opium in some form or other. They repress the cough but do not eradicate it; hence the first purchase paves the way for a second or a third; meanwhile, as it is the essential nature of opium to close up, to constringe, to deaden the sensibilities, the bowels do not feel the presence of their contents calling for a discharge, and constipation is induced and becomes the immediate cause of three-fourths of all ordinary ailments, such as headache, neuralgia, dyspepsia, and piles.

There are but few, if any, cough medicines which do not contain opium in some form, and being invariably advertised as perfectly harmless the consequence is, many cases of poisoning by them every winter. They are seldom among adults, because the quantity of the drug is small; but children in large numbers are victims, for the reasons their parents do not know how to properly regulate the doses.

Patent Medicines Cause Many Deaths.—We know that more than one-third of all the children die before they are five years old. One cause for this terri-

ble mortality is the indiscriminate use of patent medicines and especially those advertised as cures for coughs, colds and bronchial affections. If a child has bronchitis, the same medicine which would be good for it in the first stage of the attack would, as a rule, do it much harm after the disease had run on for several days. With scarcely an exception, parents consider in such cases that the one all important object is to stop the cough; they never consider that there is a disease back of that which should first be overcome, and until it is, the cough should exist to clear the air passages of matters which accumulate rapidly. Stop the cough under those conditions and you but dam up in the chest what must be expelled by coughing, otherwise suffocation is threatened.

It should be clearly understood that a cough at all severe "must have its run," and would not be likely to disappear inside of two or three weeks. If the patient "holds his own" at first, and after a week improves a trifle each day, that ought to satisfy any one. If it does not do that under the simple treatment which we have advised, then a physician should, by all means be consulted. If that is not done, but, instead, experiments with patent medicines are tried, harm is sure to result, and if the child is injured thereby and fails to recover, then the parents are alone to blame for its death.

Cough drops, lozenges, troches, syrups are an injury in coughs and colds. They retard, instead of promoting expectoration, which is nature's plan to get rid of accumulated matter.

Money Making and Health.

The first of April has had its effect on the health of many persons. It is the day when settlements are usually made, and woe to the person who is short. It is the time when changes in business and employments are usually made, and woe to him who gets left.

What a blessed thing it is to feel that to-morrow is certainly and abundantly provided for, to be a little forehanded, to have a little spare money always on hand. Money is a medicine, and making money in a legitimate way is both a tonic and stimulant. It accelerates the circulation. It enlivens the spirits. It lightens the heart. It wakes up our energies. The Bible tells us that "money is a good thing." Of course the inordinate desire for money is a sin. "The love of money is the root of all evil." With money, as with everything else, there can be abuses. These are sinful. But to have enough money to meet the ordinary requirements of life and of the family, is invigorating to health and spirits.

Money a Good Tonic.—Take any man any day who is "hard up"—with whom the world does not go well—who finds he is going backwards pecuniarily, and yet claims are coming upon him which must be met; wants which must be supplied; necessities which cannot be evaded; his rent must be paid; his board bill must be liquidated; the butcher and baker and milkman all are

pressing for their respective dues; let a man be ever so hopeful, ever so courageous, ever so brave, in general, there will be moments when the difficulties of his position become so pressing that his manliness almost forsakes him; he starts at his own shadow and well nigh comes to the conclusion that it is useless to struggle longer, and that he "might as well give up." Just at this juncture let a proposition be made, by which with the expenditure of a reasonable amount of bodily activity and mental adroitness, more money can be certainly made than he has been accustomed to realize in so short a time, with every guarantee that the dividend will increase with time in an encouraging proportion, and he becomes a new man within the hour; his face wears a new aspect, a new life comes into his eyes; color rushes to the cheeks; the spring of youth is impressed into his steps and there is an elasticity imparted to both mind and body to which he has been long an entire stranger. Therefore money-making, in a legitimate way, is a medicine good to take and easy, and to save is the easiest way of money-making. Practice economy. Spend a little less every day than you earn. You will thus have that ease and comfort of mind so conducive to health.

Which is Cheaper?—Is it cheaper to pay five or ten cents for a street car or an omnnibus, when going to and from the depot, or to walk, rushing to make the train and carrying a load of bundles, over-heating yourself, so that you have to pay five or ten dollars to the doctor, and lose a week or two from your work or business?

Which is cheaper, to strain your eyes reading or

sewing in the twilight, in order to save a few cents in your gas bill, and then paying dollars for spectacles, and suffering the inconvenience and annoyance of impaired eyesight the rest of your life time?

Which pays better, to rush over a street crossing, in front of a conveyance, and, perhaps accidentally slip and be run over, or to wait a minute, cross at your leisure, and go your way rejoicing?

Is it better to work yourself into a fit of excitement, live in a perpetual "stew," do everything by the high pressure principle, and eventually, when the system can bear the strain no longer, topple over in an attack of apoplexy, before you have lived out half the period allotted to man, or to take life more at ease, give yourself time to do your work, not let your business drive you crazy, and outlive the period which Moses assigns to man in the ninetieth Psalm?

Which is worth more to your child's lifetime, to rush him to school and through the Fifth Reader by the time he is ten, and then to suffer from a broken down constitution, nervousness, debility and a thousand other complaints, or to let him get a good, sound physical frame, by plentiful outdoor exercise first, even if he is not quite as smart as some of your neighbor's children, and yet, at the age of thirty be capable of better active service, having the *sana mens in sano corpore?* Health first and knowledge afterwards, or an over burdened mind, with a body too effeminate to carry its weight—which?

Precautions Against Contagious and Infectious Diseases.

SCARLET FEVER, DIPHTHERIA, SMALL-POX, VARIOLOID, TYPHOID FEVER, TYPHUS FEVER, YELLOW FEVER, MEASLES, CHOLERA, DYSENTERY, ERYSIPELAS, MUMPS, AND WHOOPING COUGH.

Some of these diseases are communicated directly from person to person; such as scarlet fever, small-pox, and measles. Others contaminate fluids and solids which are eaten by human beings and thus enter the system; such are typhoid fever, cholera and dysentery, while others still pass from person to person through the air, (so far as our present knowledge extends,) such as typhus fever, small-pox, whooping-cough and influenza.

It is fully believed by sanitarians that most infectious and contagious diseases could be "stamped out" completely, could mankind be induced to live up to the light which we now possess concerning their nature. The "plague," "the black death," "the sweating sickness," and "cholera," in former years ravaged continents, carrying to the grave from one-fourth to three-fourths of all the inhabitants. Their ravages have been stayed; some of them are unknown in civilized countries. May the diseases here named be unknown

to future generations. To aid in their restriction, the State Board of Health publishes this circular.

HOW CONTAGIOUS DISEASES ARE SPREAD.

How Spread.—It is believed that each of these diseases is the result of a special poison (contagion) working in the body. These enter the system in different ways, and exert their main force on different parts of the body.

Scarlet fever, small-pox and measles and all eruptive fevers of the skin are probably propagated by a poison discharged in the dead skin, as well, also, as by means of all discharges from the bowels, bladder, nose, mouth, eyes and ears. The discharge from the skin, dry dust, scales, scabs, etc., as well as from the nose and mouth, are believed to be especially malignant.

In diphtheria, the discharges from the mouth, nose and throat, as well as from the bowels and bladder, are believed to contain the poison, especially those from nose, mouth and throat. The same is true of whooping-cough. In the case of consumption the matter coughed from the lungs probably is a means of propagating that disease. Typhoid fever, cholera and dysentery have their special poisons in the discharges from the patient's bowels which are disseminated in drinking water. The same is probably true of yellow fever. Puerperal fever may be conveyed from patient to patient on the person of physicians and nurses. Parasitic diseases are obtained from foods and drinks, and by actual contact of a

healthy person with one diseased. The same is true of syphilis. Typhus fever seems to be a disease caused by over-crowding, and by foul gases from sewers and drains.

TIME REQUIRED TO DEVELOP THESE DISEASES.

The time intervening between exposure to the special poison and the appearance of the first symptoms of these diseases varies greatly. It may be from only a few hours, as in the case of cholera and yellow fever, to three or four weeks or even longer as in typhoid fever.

A case of genuine yellow fever was developed at Womelsdorf, Pa., which caused the death of a child, after a few hours of sickness with black vomit. The disease was carried all the way from Florida, in the shipping of a live alligator, sent to the boy as a present. What an impressive health lesson is taught by this occurrence.

The germs of disease, not only of yellow fever, but of scarlet fever, diphtheria, etc., are frequently carried in clothing, playthings, etc., of children and thus transmitted long after the disease has disappeared.

At a meeting of the Funeral Directors Association, at Erie, Penn., a very interesting communication was read by B. Frank Kirk, a member of the fraternity. He told, with grim satire, of many experiences in burials after infectious diseases, one of which shows so plainly the indifference of people to the matter of prevention. It is worth repeating:

"A wealthy lady, whose little boy we carried to the tomb after he had died of scarlet fever, requested us to carry in our wagon a large bundle of his clothing to a poor family not far away. When we meekly suggested that the articles had better be disinfected first, she seemed hurt, and with a look of ineffable scorn repelled the imputation that any disease lurked in the habiliments of her precious babe.

"But we must do the lady the justice due her big, kind heart, and testify to the fact that she contributed quite largely to the expenses attending the burial of the two children of the poor woman whose little ones soon wilted and perished of scarlet fever after receiving the package of fine clothing."

Persons Liable to these Diseases.—As a general rule, one attack gives immunity from any second attack. Scarlet fever, diphtheria, measles, and whooping cough prevail most among children, but may attack all ages. The other diseases named attack persons of all ages. As a rule, the cleanly, temperate, well-fed, and well-housed suffer less from these diseases than do the ill-fed, intemperate, ill-clothed, over-worked, and ill-housed, but this is not always so. The intemperate certainly suffer more than others. Those who have been *successfully* vaccinated within seven years, do positively escape small-pox. Persons who are in a "run-down" and exhausted state of body, are more liable than others to have the germs of disease take root in their bodies than are others. Typhoid fever espec-

ially attacks those in vigorous life. Diphtheria generally passes nursing babies.

How to Avoid these Diseases.—See to it that your family and yourself are successfully vaccinated. Unless your services are needed, stay away from all houses in which these diseases are present. Don't attend funerals from any of these diseases. Keep children away from all houses in which these diseases prevail. If any of these diseases, to which children are subject, are epidemic in a town, keep your children from day and sabbath schools, from churches, and all assemblies. Be sure that the water you drink is pure; well water is always to be suspected. In traveling, it is safest to drink only boiled water, such as one gets in tea and coffee. When renting a house always ask if it has been free for the past two years, from all these contagious diseases, and demand a written guarantee. Educate the people of your neighborhood as to the nature of these diseases, and what they should do when they occur. Aid in establishing a local board of health, and see that your community has laws in reference to cleanliness, private funerals, the isolation of those sick of contagious diseases, and the closing of schools and churches against those living in houses in which any disease prevails. The country privy and the city cesspool should be abolished everywhere absolutely. The most scrupulous cleanliness must be enforced everywhere. When contagious diseases prevail, do not send your clothing to the public laundries. There should be

a notice on every house in which there is a contagious disease, so that the public may be warned to remain away.

If one is required to be about one sick with a contagious disease, he should eat his meal regularly, take some exercise in the open air each day, get his usual amount of sleep, and dismiss all over-anxiety as to the danger of contagion. But he must avoid the special poison. Do not take the breath of the sick one. Do not touch with the lips any food, drink, cup, spoon, or anything else that the sick person has touched, or that has been in the sick room. Do not wipe your face or hands with any cloth that has been on or near the sick person. Do not wear any clothing the sick has worn during, just before, or just after his sickness. Keep your hands free from any discharges from the body or skin of the sick person, and if they do become soiled, wash them soon as possible in water containing a solution of chloride of lime. Do not touch the sick with sore or scratched hands. Particularly avoid receiving into the body through the mouth or nose, any of the scales or scabs from the skin of those sick or recovering from scarlet fever or small-pox. Consumptives should spit on rags and these should be burned. This sputa should never be eaten by chickens or other domestic animals, as there is reason to believe that it will infect them, and they in turn, through their meat, other human beings.

Whenever a place is threatened with an epidemic

of any contagious disease, the local board of health, or the town council, should appoint a few discreet persons who should go from house to house and instruct the people in what they should do to avoid the threatened danger. This should be done without creating any alarm. The town should be thoroughly and scientifically cleaned and disinfected, and the condition of the drinking water examined by an expert.

Precautions.—One of the greatest errors into which people can fall, is the belief that whatever is to be will be. *Won mer's hawe soll grikt mer's doch*, is an expression very often heard among Pennsylvania Germans. It is frequently said: "I am not afraid that I will get this disease, for if I am to have it, I will get it anyhow." This is fatalism in its worst form. If Adam was to fall, he would have sinned, regardless of what he could have done; if a person is destined to go to the bad, he will go and nothing can prevent it. If a person is to have measles or small-pox, or diphtheria, or consumption, or typhoid fever, he will get it despite all precautions." This is a fatal error. Parents and teachers should guard, assiduously, against instilling such principles into the minds of the young. We are bound by the duties which we owe to ourselves and our fellow-men, especially our families, to take all precautions for the preservation of property, body and mind. The householder, who is careless with his lamps and fires, is responsible if a conflagration results from his carelessness. The parent,

who does not watch over the health of his children, is guilty of the sin of neglect, especially if he lets arsenic lie around the house, where the little ones have access to it and swallow it. The mother, whose little ones have measles, or chicken pox, or mumps, or scarlet fever, is in duty bound to keep them warm and dry. If she drives them out into the wet and cold, she is responsible for the result, and it will not do for her to argue, "if they shall get well they will get well, and if they are to die they will anyhow." The father who refuses or neglects to send for a skillful physician, when his children are sick, holding the fatalistic doctrine, if they shall get well they will do so, whether I furnish them medical treatment or not, is as guilty of sending them to the grave, as if he refused to put a roof on his house, on the principle that, if they are to be sheltered they will be, and if it is not to be so it will not.

Precautions are Necessary under all circumstances. To employ all the means, which God and nature has given us for the prevention of disease, is a solemn religious duty, as well as a common sense principle. Let no one neglect it, or be blinded by the fatalistic belief, that what is to happen will happen. When there are contagious diseases in the community, take the necessary precautions in school and family. Keep the children away. Isolate them from other members of the family if there is sickness in the house. Let those whose duty it is, attend to the sick and take the necessary precautions, just as physicians, ministers,

and nurses do in such cases. Do your duty and trust in God.

Infection from Paper Money.—Some singular facts concerning the danger of infection by paper money have been educed by a bacteriological analysis of the bank notes of the Spanish Bank of Havana in general circulation. Attention was drawn to the subject by the fact that circulation increased the weight of the notes in consequence of their acquiring foreign matter. The examination made showed on the notes in use for some time a considerable number of microbes, and on some notes as many as 10,000 microbes were detected. Eight pathogenic species were encountered, including those of diphtheria and tuberculosis. The result of the examination was that a general warning was issued to the public against the active source of danger. The use of bank notes is at all times attended with a certain degree of risk, and especially in Havana, where children have the habit of carrying paper money in their mouths and are thus very liable to swallow the germs of some mortal disease.

Disinfectants.

Valuable Ones.—Attention cannot be called too frequently to the necessity of disinfecting school rooms, buildings and premises, in general, especially if diseases prevail in the neighborhood.

The sun's rays are powerful. The accumulations of the winter months inside and outside of buildings, some of them almost unavoidable, are such as to require immediate attention. Alleys, yards and roadsides should be thoroughly cleaned at once, for, to say nothing of the unsightly and ofttimes disgusting appearances, these refuse piles present, they are disease and death breeders. Give a thorough cleaning out to all gutters and receptacles of debris and have all accumulations removed. Rake together all dead leaves, grass and decaying vegetable matter, and burn them up. In other words, remove and destroy all disease breeding germs in and about the premises. Do not depend on disinfectants, as long as the sources which are capable of producing sickness remain.

The mere creation of an odor to overpower some other odor, or the use of a material which only retards decomposition, has no claim to be trusted in destroying disease germs. Large sums of money are spent annually for worthless chemical agents, while the proper precautions are neglected.

Gases not Odors Should be Killed.—An item goes the rounds of the papers that onions, cut in thin slices, and put on a plate in a room will absorb noxious effluvia. This is just as true as that the smarting from the scratch of a pin becomes instantaneously unfelt if a person is knocked down. Camphor sprinkled around, sugar burnt, cologne, bay rum and similar perfumes only add to the mischief. It is not the odor you want to get rid of, or which does the mischief, but the poisonous gases and miasm generated by escaping substances, which generally emit very little or no odor. You must go to the root of the matter, for as long as there is no eradication from the foundation the mischief is not remedied. The American Public Health Association has given the following definitions: A disinfectant is an agent capable of destroying the infective power of infectious material. Agents which merely mask unpleasant odors are deodorants, and their purpose is not the destruction of disease germs.

We repeat, at this season of the year, spring, you can not begin too early; take decisive steps to have your premises put in a clean condition, if you would guard against malaria, typhoid fever, scarlet fever, diphtheria and similar diseases. Use lime, chloride of lime, copperas solution, chlorine gas, and similar disinfectants freely, but first of all, give the premises a thorough cleaning.

A cheap disinfectant is a solution of chloride of lead. It is inodorous, effective, and the cost is small.

Take half a drachm of the nitrate and dissolve it in a pint or more of boiling water. Dissolve two drachms of common salt in a pail or bucket of water; pour the two solutions together and allow the sediment to sink. A cloth dipped in this solution and hung up in a rooom will correct a bad odor promptly, or if the solution be thrown down a drain or upon foul-smelling refuse, it will have the same effect.

The author recommends mercurial chloride. The windows, chimneys, etc., are carefully closed up, and 50 grms. mercuric chloride are placed in any suitable vessel, which is then set on a pan of burning charcoal, the operator leaving the room and closing the door. After about four hours he re-enters, with a cloth over his mouth and nose, and throws open the windows. After some hours of ventilation, a slight stoving with sulphur is made to follow, which neutralizes any remnants of mercury. This process not merely disinfects, but destroys all kinds of vermin.

The room to be purified with sulphur should be made as tight as possible, so that no fumes can escape, either by window, door or chimney. Put three pounds of sulphur in an iron pot, which should not stand upon woodwork or carpet, lest they be burned, but in a large pan of ashes, or upon a layer of bricks; on this pour a tablespoonful of alcohol. This is then set on fire, and everybody immediately withdraws from the room. The room should remain closed ten hours, after which it should be thoroughly aired before it is occupied, for the fumes of the sulphur are irritating to the lungs.

Heat is one of the best, if not the best disinfecting agent. Articles of bedding and furniture that cannot well be treated otherwise can be purified by a long exposure to a temperature of 240° F. In some cities, especially in England, furnaces are made for the reception of bulky articles that have become infected.

Fresh pure air is another powerful agent. If woven fabrics, clothing and the like are for a long time aired out of doors, they cease to be infective; probably by the enormous dilution, if not destruction of the elements of danger.

THE TIME TO DISINFECT.

Not only because there is danger of cholera visiting us, but for sanitary reasons, in general, it is important that great care should be exercised, so that the premises of home and school be cleaned and disinfected. This work can not begin too early.

Therefore, as soon as the weather permits, clean away all rubbish, ash piles and deposits of whatever kind in the vicinity of dwellings and school houses. Especially clean and whitewash cellars. Permit no rotten potatoes, or other vegetables that are going to decay, to remain there. Scatter lime about the buildings; chloride of lime is better, but it is expensive. Dissolve two pounds of copperas (sulphate of iron) in a bucketful of soft water, and pour off the solution, by the tincupful, into water closets and around the walls of buildings and out-houses. Repeat this every week till warm weather has fairly set in.

Dyspepsia.

A LITTLE COMMON SENSE ON A TRITE SUBJECT.

Early Rising a Humbug.—Dyspepsia has one virtue, it will get out, bag and baggage, if given a fair chance. It can only be kept as a companion by being fed and nourished according to its own peculiar tastes.

Of all the humbugs ever gotten up for the cure of dyspepsia, early morning walks are, perhaps, the greatest. A long walk on an empty stomach will exhaust and tire a well man. How much more will it exhaust and tire one already suffering from lack of vital energy? It will do very well for those with a tendency to overfatness or with too much vital energy. The dyspeptic is the better for sleep and rest.

The old doctrine that the early morning air is purer and healthier than that of midday has been exploded. The foul damps that rise from the earth after the vitalizing and purifying rays of the sun have been withdrawn are still afloat. The air may feel much cooler, and to one with plenty of good blood it is most agreeable, because it robs his system of the surplus heat, which induces the languor he experiences when he gets out of bed.

A thin-blooded individual will suffer chills, while his fat friend will be experiencing a glow. One is

braced up, the other shaken up. There is the difference. It is a question of blood, not of nerve or disposition. The fat man is not jolly because he is fat, nor is the jolly man fat because he is jolly. They are fat and jolly because their digestion is good.

The first thing a Dyspeptic must do in order to get well, is to give his brain a rest. Let him cultivate a habit of resting quietly one hour after eating a breakfast of boiled steak, toast and clear coffee; sleeping one hour, or more, after a dinner of roast beef, fish or fowl, toast and coffee or milk; an hour's rest after a supper of steak, game or fish, toast and coffee or tea, plain.

There has been a good deal of fun poked at the hot water cure for dyspepsia, yet the fact remains that no better tonic and regulator for the stomach is known to the medical profession, than that same goblet of hot water—as hot as can be borne sipped slowly a half hour before each meal.

Rest, plain food, plenty of sleep and freedom from care will knock the toughest case of dyspepsia silly. Pills and powders are no good for steady use. Occasionally they may be needed, but not often.

Alcoholic and fermented drinks are bad medicines for dyspepsia; neither is too much cracked wheat, oat meal or corn starch good. These should be touched sparingly. Milk is excellent when it agrees with one. It should never be gulped down, but drank slowly.

The Causes of Dyspepsia.—One of the most frequent causes of dyspepsia (says Dr. Pepper), is the con-

stant use of irritating substances, such as tobacco, alcohol and highly seasoned food. Tobacco and strong tea and coffee act both by depressing the nerve force of the stomach, and, if swallowed, by directly interfering with the digestive processes. It will not be disputed by any fair-minded person that tobacco, tea and coffee are injurious when taken in excess. It must be admitted that the majority of men, in a state of health, can use a certain amount of tobacco without injury. This amount varies with the individual, but is in any case small. I cannot speak too strongly against the filthy and disgusting habit of chewing tobacco.

How to Cure Dyspepsia.—Court fresh air by day and night. Always sleep with a half-open window. Masticate your food thoroughly, that is, chew it fine. Avoid spices, pickles, cheese, salt meat, sour crout, etc. Rise early, wash frequently, take plenty of exercise.

A cup of hot water or hot milk at meals is better than coffee or tea, and much better than cold water.

Do not eat too much, or force the appetite. Man is a miserable dyspeptic for a large part of his life; and all from his not having had wit enough to know when he had eaten plenty, and being foolish enough, when he had felt the ill effects of thus eating too much, to repeat the process an indefinite number of times; and all for the trifling object of feeling good for the briet period of its passing down the throat. For each minute of that good time he pays the penalty of a month of such suffering as only a dyspeptic can appreciate. What a fool man is!

Dysentery.

Dysentery.—Is literally a "difficulty among the intestines;" it is a discharge of blood from the bowels, accompanied with what has been aptly called "an atrocious pain." You feel as if you would be relieved by an evacuation, but when the attempt is made, there is a fruitless straining, termed *tenesmus*, and nothing comes of it, unless it be blood. The rectum, or last foot of the lower bowel, is the main seat of dysentery, which is commonly called "bloody flux." It should be always considered a dangerous disease. At first the discharges are odorless; but as the parts come more under the influence of the disease, they become disorganized, rotten, and insufferably offensive. Dysentery most abounds in hot, dry weather, and in often caused by bad air, a sudden check of perspiration, or by whatever makes the skin of the body cold. In fact, dysentery may be considered an exaggerated or aggravated diarrhea—the latter is water, the former, blood. The great distinguishing features of dysentery are bloody passages, with a frequent, fruitless, and painful effort to stool. It is one of those diseases which are very apt to go to a fatal termination, if let alone; a disease which is often made more speedily fatal by being ignorantly tampered with; and whether blood is passed from the

bladder or the bowels, a skillful physician should be called in as promptly as possible, as promptly indeed, as if it were an attack of cholera.

Remedies.—While the physician is coming, there are several things which may be safely done for the comfort of the sufferer, if not for his cure. The patient should not sit up a moment; should keep as quiet as possible; should eat nothing but boiled rice, or flour-porridge, and swallow bits of ice to complete quenching of the thirst. A little cold flaxseed-tea may be swallowed from time to time. A favorite prescription of some of the old physicians of a past generation, and which is now said to be in vogue in Russia, for several forms of diarrhea and dysentery, is the use of raw meat—thus, take fresh beef, free from fat, scrape it into a pulp with a knife, season it with salt to make it more palatable, or with sugar for children, to whom begin with one teaspoonful three times a day, gradually increasing the amount as they become fond of it. Adults may use it by spreading it between two slices of stale bread. Its merit consists in its being easily digested, very nutritious, of small bulk, and readily assimilated to the system. It is well known that children having the summer complaint will ravenously eat, or rather chew or grind between their gums, a piece of the rind of bacon or ham, to which is attached half an inch of fat, and begin to improve in a few hours. The whites of several eggs "whipped," and then sweetened with white sugar, and drank through the day, without any other food, is an

admirable remedy in these ailments. Or for dysentery or protracted diarrhea take half a teacup of vinegar, with as much salt as it will take up, leaving a little excess of salt at the bottom, add boiling water until the cup is two thirds full, remove the scum, let it cool, and take one tablespoonful three times a day until relieved. It has not failed of cure in many hundred trials.

As dysentery is often epidemic, it is wise to consider every case as a possible source of danger to others, and to disinfect the discharges with care.

Diphtheria.

The word "diphtheria," was introduced by M. Bretonveau in 1826. It means a double skin. We have an inside skin, as well as an outside one. The internal skin is called the mucous membrane. When the throat or wind-pipe is inflamed, a thin substance exudes from the inner skin of the throat, the mucous membrane. This appears in patches which spread and harden and thicken, until the wind-pipe is closed and death ensues. In croup the substance is less solid and forms a kind of phlegm, which is more or less tough, but not as solid or compact as in diphtheria. It is not as leathery in its nature, and not so difficult to remove. Diphtheria is also more dangerous than croup, on account of the general debility which seizes the patient, and its tendency to destructive ulceration, a kind of rotting or mortification.

The whole mass of blood is corrupted, diseased, is destitute of those elements which are necessary to health.

Children are mostly attacked with diphtheria, because it is a disease which depresses every power of life, and, hence, the weaker the subject, the more liable to the attack. The few grown persons who "take diphtheria" have some scrofulous or other weakening element.

Neither adult nor child in really vigorous health is ever attacked with it; only such as are deficient in stamina suffer from it.

The reason that several members of a family are attacked is the similarity of constitution, habits of life, diet, breathing the same air, etc. The immediate cause being mostly breathing a faulty or defective atmosphere. Hence raw, thawy, rainy days are the most dangerous.

The Causes of Diphtheria are but imperfectly understood. It visits all places, town and country, dry and damp regions, elevated and marshy localities, illy-ventilated apartments and the open country. It tends, however, always to fasten on debilitated constitutions, or where the vitality is lowered. Bad blood is an essential condition of the disease. Impure and indigestible food, with inattention to cleanliness, is also a source of it. Perhaps a pork diet may be named as one of the causes. It is certain that hog's meat is not very conducive to health, and that those who are predisposed to diphtheria, on account of constitutional weakness, would better abstain from the use of pork. No doubt, too, it is very often spread by the exposure of the corpses at funerals, and especially by the large attendance of children at funerals, and the indiscriminate visiting at the houses of the sick.

How Children Complain and what to do in Diphtheria.—The three universally present symptoms of diphtheria are: 1st, a general prostration of the whole system; 2nd, an instinctive carrying of the hand to the

throat; 3rd, an offensive breath. Sore throat, swelling outside, and an exceedingly offensive breath are among the first indications of diphtheria. On opening the mouth there will be seen in the back part of the throat and tonsils spots of a whitish or grayish white color, with fever and general depression and debility.

Remedies.—In the earliest stages, a gargle of salt water should be freely used, every fifteen minutes, and flannel should be tied around the neck, dipped in salt water, as hot as the patient can endure, renewing every five minutes. Whether diphtheria is in the neighborhood or not, if a child complains of sore throat and has an offensive breath, send instantly for a physician. When diphtheria appears in a family, keep up a thorough ventilation, and send all the children who are not affected to a place several miles distant. Allow no child from a diphtheria family to come to school, or into another family where there are children. Allow no children to go to a house or funeral where this disease has been. Use chloride of lime as a disinfectant very freely.

Disinfect the school, when the disease prevails in the neighborhood, with chlorine gas, prepared by mixing in a saucer placed on a warm stove a handful of fine salt, with an ounce of black oxide of manganese, and pouring sulphuric acid mixed with three times its bulk of water on it. Open the doors and windows when you disinfect the school.

What may be done to prevent Diphtheria. Every damp or foul place should be an object of suspicion. Every damp cellar, every confined, sunless space is a source of danger, as well as every sewer or drain. Not, as we believe, because sewer gas by itself would give diphtheria, but because a sewer is an admirable place, according to the best of our knowledge, for the diptheritic poison to multiply, and if the gas of such a poisoned sewer is inhaled, the poison is likely to be inhaled with it, the gas playing the role of a carrier, just as drinking water often does for the poison of typhoid fever.

It is not pretended that care can prevent diphtheria with anything like the same certainly that vaccination prevents smallpox, but much can be done, and if the disease does come, there is not added to the trial of dangerous illness the distressing sense of criminal carelessness.

Let, therefore, sunlight and pure air go everywhere about the habitation; if any foul place be observed, see that it is cleansed, if necessary disinfected, and if possible kept sweet and dry. Do not let the slops of the kitchen, be thrown upon the ground; do not invite the filth of poultry by feeding them about the door. Do not—but the detail of household errors need not be gone into.

How to Prevent its Spreading.—But if diphtheria has actually come, what shall be done to prevent its spread? This is a threadbare tale, but must be told

over and over again. First, remove, if possible, all children from contact with the patient and from the place of supposed infection. If the latter be not possible, keep all children absolutely away from the sick one and for a long time after the case is ended, as well as from the room where it was ill. Moreover, let no adults who are not much needed go near the child, and let no one attend both the patient and the well children. Such details involve much care, we grant, but neglecting them so often means serious, if not fatal, illness that they must be insisted upon. Instances enough of the results of laxness in this particular could be given, but they are too painful. Let nothing go out of the sick room to other children. We have in mind the setting up of diphtheria in a town in a distant state by means of a doll, the plaything of a child fatally sick with diphtheria and sent after her death to one of her little friends. All things that can be burned with decent regard for economy, should thus be disposed of. For this reason no handkerchief should be used, but, in their stead, old rags or soft paper, which can be put into the fire directly or at frequent intervals.

There is one source of diphtheria that has not been mentioned which may be best alluded to here, and which is held by many experienced observers to be a very important one. It is contagion from patients able to be abroad. Some are, perhaps, adults, in whom the disease was not sufficiently severe to have ever laid them up, and passed unrecognized. Other are conval-

escent cases—children mainly—who are allowed too soon to be about, and who carry to their companions in the house, the school or the street the poison which still clings in the recesses of their throats or their garments.

It is the part of prudence to give care to the condition of children's throats, and, if they present catarrhal condition, to teach them to cleanse them by the use of proper gargles or sprays. This may be done at morning or evening or both. Among throat specialists there are a number of cleansing solutions pretty generally employed. A very simple one which answers this purpose very well, and can be made extemporaneously at slight expense, is a drachm (a small teaspoonful) of pure carbolic acid in a pint of lime water.

Valuable Hints.—Concerning the management of a case of diphtheria, so far as that they may fall within the domain of the parents, the following few rules, while not incorporating all, are still the most important for preventing the spread of this dreadful disease, and our earnest advice to every mother is to study them carefully, and preserve them for future reference.

First, strips of linen or cotton fabric, about eight inches wide, folded several times, and long enough to reach from ear to ear, should be wrung out of ice water (if in winter), and if in summer put directly upon ice, and then applied externally to the throat, and as fast as one cloth gets warm another should be ready to take its place. If the child complains of being cold, its feet and hands should be bathed in as hot water as it can

stand. When the child is very young, it may be readily ascertained if it be cold or not by feeling its hands and head. Under no circumstances should hot applications be made to the throat. If the child is old enough, it may be given broken ice to suck constantly, even if the water is spit out. The cold applications inhibit the growth of the microbes. The patient's hands should be washed frequently—and here let me say so should those of the attendants—and the vessel used for the purpose should not be used by anyone else. The patient's clothing needs protection in front.

Diarrhea.

Hints for Summer.—August is one of the most fatal months of the year. Nearly twice as many persons die in August as in December. Cases of sickness are very frequent in August and September. Many of these are avoidable by exercising care in eating and drinking. Acids promote the secretion of the bile, prevent fevers and keep the system free. Hence, eat fruits, berries, cold-slaw, pickles, salads, and avoid sweet milk, ale, beer, porter, which tend to create bile, to constipate, to induce headache, cold feet, neuralgia, and want of appetite. The whole system is weak, and indisposed to efforts in hot weather. The stomach is in a relaxed condition, and to impose on it full, heavy meals, and then to urge it by tonics, stimulants and tempting viands is suicidal, and the cause of much of the sickness and suffering of summer.

Diarrhea, looseness of bowels, is a very common complaint in summer. It is not caused by eating ripe fruit, with moderation, as some people surmise, but, on the contrary, fruit in season is healthful when ripe and temperately eaten, and a prevention of bowel diseases. It is nature's food, prepared for use, at the time of ripening. Common sense teaches that it should be used at the time that the Creator dishes it up for us on his great table in nature.

In warm weather, when there is excessive vermicular action of the bowels, or looseness, as it is familiarly called, every step a person takes has a tendency to set the bowels in motion. Instinct and common sense, therefore, dictate the most perfect rest. Drinking fluids aggravates the malady. Lumps of ice chewed and swallowed, in as large pieces as possible, will allay the excessive thirst. This treatment will cure nine cases out of ten, if adopted within forty-eight hours, if not, call a physician.

Diarrhea Cured by Quietness.—*Diarrhea* of hot weather is often cured by maintaining perfect quietude in bed, and eating acid fruits and berries in their natural state while ripe, raw and fresh. If the acid fruit fails, eat nothing for a few days but common rice, parched brown like coffee, and prepared in the usual way.

Persistent summer diarrhea is usually caused by malaria, sewer air or impure water. The conditions liable to contaminate air and water should be carefully sought out and remedied. The water can be rendered safe by boiling.

Many persons have diarrhea as a consequence of a cold; they can not rest until they "take something" to "check it," with the certain result of its falling on the liver, to end in a "bilious attack," if not on the lungs, to cause pneumonia, or pleurisy, or other more serious form of disease.

Diet.

Why we Should Eat.—We eat and drink for two reasons: to supply waste and to keep warm. The more we work or think, the more waste there is, the more we must eat. The heat of the body is 98 degrees, and this is the same, in health, whether we are on Greenland's icy mountains, or India's coral strands, or where Afric's sunny fountains roll down their golden sands.

The temperature of the body being the same, always, at all places, the amount of heat to be supplied, the food to be eaten must vary, and be proportioned to the heat needed, just as we make more or less fire in our dwellings, to meet the temperature without. The family using the same amount of coal in July as in January is crazy. The man who eats as much in July as in January is ditto. But there are still bigger fools than this man. They are those who when warm weather comes, finding that their appetite is not as keen, think "there is something the matter" with them, and begin to "take something" to "sharpen the appetite," as tonics, bitters, whiskey, etc.

We change our clothes in spring from heavier to lighter, begin to wear straw hats, shave down our beards, and lay aside our hibernating habits. Among the things that should receive special attention now, is

our food. Many people have a supply of pork on hand, which must be eaten up—one of the worst things that can be done. Our instincts revolt against this practice. If we were but as wise as the animals, we would heed the warning and refrain from eating fat meats. It may do for the Esquimau to swallow his blubber and eat tallow candles. But, we are neither Esquimaux, nor do we live in the frigid zone. If we disregard the indications of nature, the stomach will rebel and we become bilious.

When the winter appetite like our thick clothing, is put off, or reduced, to attack nature by an attempt to hamper the appetite by the use of delicacies and choice viands and overloading the stomach, is the height of folly. This results in overworking the stomach, deranging the organs of digestion, and inviting disease.

Do not use Appetizers.—Appetizers, tonics and "Spring" medicines are next resorted to. If the old-fashioned sassafras tea were used, the effects would not prove so injurious, but instead of this all kinds of patent medicines and nostrums are swallowed, and the result is weakness, biliousness, chills and perchance malaria.

Now, all this trouble might be avoided by proper diet, in proper quantity, and at proper times. Let the following rules be observed, and many of the spring ailments can be avoided:

Change from a fatty to a less fatty diet.

Avoid pork and rich pastry.

Spread your butter only half as thick.

Eat a soft boiled egg or two for breakfast.

Eat a piece of beefsteak, done rare, once a day.

Use plenty of vegetables.

Eat fish rather than too much meat.

Always drink a cup of strong coffee in the morning before leaving the house.

Do not eat between regular meals. Parents do their children great injury, and oft-times prepare the way for sickness, by indulging them in this habit.

Don't eat dinner, nor any other meal, at 9 P. M.

Nature craves for something acidous. Drink weak lemonade occasionally.

Avoid highly seasoned food.

Mustard, horse-radish and onions, if used at all, should not be used in large quantities. Better avoid them.

Salt should be used but sparingly.

Importance of a Good Breakfast.

Better to make your Coffee good and less of it than to have a bucketful of slop, that has no taste of coffee. The people of the South know how to make good coffee. They can beat us Pennsylvanians in coffee making, though we can beat them in cooking. Coffee should not be boiled "all to pieces." A cup of *good coffee*, even, if it is not a *good cup* of coffee, a little of it, but good and strong, is the best medicine a person can swallow in the morning. It is a great health promoter and preserver.

Better to have a small piece of beefsteak for your breakfast, well prepared, good and tender, not all burnt to a crisp, all the flavor and nourishment, which it contained sent up the chimney, than much of the tough, indigestible, tasteless stuff, so often found on the table. It should be broiled, rare and juicy.

What a grand thing it is to rise with the sun, at this season of the year. He that lies abed till seven misses one of the great operas of nature—the birds' concert. It pays to take in this gratuitous performance —for the admission is "free, gratis, for nothing." But it does not pay to go abroad with an empty stomach.

The morning meal, or breakfast, breaking the fast, *Frueh-Stueck*, early piece, "early bit," is the most

important meal of the day. On it, and the time it is taken depend, to a great extent, our feelings of the day. It should be taken within an hour after leaving the bed, and especially before going out into the raw air and dampness of the morning. If the "fast is not broken" soon, the physical and mental energies, unsupported by food, gradually lessen and exhaustion ensues. The fluids of the stomach and smaller tissues begin to act upon the coats of these viscera, instead of the food, and an unpleasant feeling of hunger, or a loss of appetite comes on, as a natural consequence. When breakfast cannot be taken within a reasonable period after rising, the gap should be filled up by chewing a crust, a biscuit or the like. A raw egg "*sucked*" from the shell, or broken into a teacup and drunk, will be found most valuable for the purpose.

Children Should Eat a Good Breakfast.—Pupils are sometimes found in the morning without having had any breakfast. It stands to reason that a child will suffer from nervousness, headache, eye strain, etc.—ills which come from a run-down state of the system—if such a state of affairs is allowed. A diet of doughnuts is not the best for either mental or physical development, yet doughnuts are the most popular luncheon in the intervals between the different sessions.

It is God's wise provision, to regulate our appetite in accordance with the weather, so as to desire less when the weather is warmer, and that of a different kind. In winter we crave meats and fats, starches and

oily substances, sweetmeats and heat producing substances. In summer we rather loathe these, and desire acid berries, fruits, tomatoes, melons, etc.; we do not want solid heating food, but cooling and watery diet. Meats, sugar, cornstarch, fats, beans, rice, are heat producing substances. But vegetables, salads, greens, fruits, berries, tomatoes, melons, potatoes, etc., etc., are not.

Nature furnishes in warm weather strawberries, raspberries, gooseberries, cherries and all kinds of small fruits, as well as garden vegetables and similar articles of diet, simply because the system does not require fire to warm it in summer, but water to cool, water to supply the material for perspiration and evaporation, ninety-nine pounds of every hundred in berries being water.

A person eating these plentifully will require but very little drinking water.

Watermelons are the only articles of food that can be eaten in hot weather, with impunity, until no more can be swallowed. The seeds should not be swallowed, as they are injurious. Only good, ripe melons should be eaten.

Different Kinds of Food.

About Fruit.—Taken in the morning, fruit is as helpful to digestion as it is refreshing. The newly-awakened function finds in it an object of such light labor as will exercise without seriously taxing its energies, and the tissues of the stomach acquire at little cost a gain of nourishment, which will sustain those energies in later and more serious operations. It is an excellent plan, with this object in view, to add a little bread to the fruit eaten. While admitting its possession of these valuable qualities, however, and while also agreeing with those who maintain that in summer, when the body is, at all events in many cases, less actively employed than usual, meat may be less, and fruit or vegetables more freely used as a food, we are not prepared to allow that even then an exclusively vegetarian regimen is that most generally advisable. Meat provides us with a means of obtaining albuminoid material, which is indispensable in its most easily assimilable form. It affords us in this material not only an important constituent of tissue growth, but a potent excitant of the whole process of nutrition. It has, therefore, a real, definite, and great value in the ordinary diet of man, and the wholesomeness of fruit

combined with farinaceous food as an alternative dietary is not so much an argument in favor of the vegetarian principle, as a proof that seasonable changes in food supply are helpful to the digestive processes and to nutritive changes in the tissues generally.

Potatoes as Food.—As an article of diet, the potato is not any more valuable or healthful than many other kinds of food. Three-fourths of it is water, that is, $^{25}_{100}$ is nutriment, while $^{75}_{100}$ is waste. Almost the entire nutriment is contained within a quarter of an inch of the surface, immediately under the skin. In peeling thick nearly all the most valuable part is wasted.

Baked potatoes are easily digested. They require only two hours and a half. If boiled, they require three and a half. They are most healthful, and, perhaps, too, most delicious, if baked in the ashes. To have mealy potatoes, boil them until the fork penetrates them easily, pour off all the water, and cover the vessel with a cloth near the fire, till "steamed" dry.

Potatoes should not be solid nor watery when boiled—if so, they are injurious to health, indigestible. When fried brown, in slices, the starch is converted into charcoal, and the potato becomes indigestible and innutritious.

Sixty pounds, that is a bushel of potatoes, give as much nourishment as thirty pounds of meat. Potatoes at fifty cents a bushel, therefore, are worth as much as thirty pounds of meat, costing three dollars. A potato diet is six times as cheap as meat.

In other words, a pound of potatoes, costing one cent, warms and nourishes the body as much as half a pound of meat, costing five cents.

Meat, however, is more easily digested, and has some valuable ingredients peculiar to itself.

All food contains nitrogen, the substance which supplies muscle, flesh or strength. Carbon, another element contained in food, gives warmth. The colder the weather, the more carbon is required. Alcohol is almost wholly carbon, and, hence, it produces heat, but it does not add a particle of flesh nor strength. A person feels stronger after taking a drink of spirits, but it is not real strength. It is only strength preternaturally drawn in advance, the nervous system having been stimulated to make that draught, by the influence which the alcohol had on it.

Sugar is not Injurious to Health, nor, indeed, to the teeth. It is absorbed through the veins into the circulation, and there burned away for the production of heat. It is largely carbon, and as the carbon of the wood and coal furnish the heat in the stove, so sugar furnishes heat for the body. There is an old opinion that sugar attacks the teeth, corrupting them and causing their decay. This, however, is one of the "bugaboos" of frugal parents, in order to deter children from indulging in this luxury. Their fondness for sugar is a natural instinct, nature having placed it in milk, in order to form part of their nourishment. No people on earth have finer teeth than the negroes of Jamaica, who

live almost exclusively from sugar. Instead of repressing the appetite for sugar, it ought to be gratified in moderation. But the evil is in the use of candies, many of which are adulterated. The sugar of which pure candies should be made is replaced with glucose, terra alba, oleomargarine, tonka, vanilline, nigrbane oil, Venetian red, extracts of coal tar, compound ethers, etc. Avoid the use of highly colored, highly flavored candies; most of them contain poisonous ingredients.

Children especially, even some larger ones, will be tempted to eat a considerable quantity of candy on Christmas. There is no particular harm in pure candy, if eaten with moderation. Too much of anything is too much, even so of candy. Always get clear candy, and indulge in it with moderation. It will not hurt you.

Topics of this kind can be taught and talked on, in connection with the study of physiology. They are of great practical benefit, not only to children, but through them the older folks, who have never had the opportunity of studying physiology, will be placed in possession of this much needed information.

Some Persons Eat Themselves to Death, others drink themselves to death. When a man is weak or does not feel well, he often thinks he could become strong and well again by eating. His friends are of the same opinion, and urge him to eat, to force down food. Now, all this is not only nonsense, but suicidal. Nature takes away the appetite purposely

under some circumstances, and makes the sight of food nauseating. When a man does not feel well he is feeble, and the stomach shares in this debility. To require the stomach to do duty, under such circumstances, is like imposing a load of labor on a man after he has performed a hard day's work and is "tired to death."

In hot summer weather every one, even the healthiest, becomes somewhat enervated, and is thus in the condition of a sick person. Now, if we sit down and shovel in a lot of provender, enough for an elephant, many would call this what is needed, when, in fact, it is the worst thing a person can do. As well take a dose of arsenic, which will do the killing quicker, with less protracted suffering.

What is needed for ailing persons, and even the healthy in hot weather, when the stomach is averse to taking food, is to eat but little, and that the lightest kind of food, coarse bread, ripe fruits and vegetables, and then exercise in the open air.

The stomach under such treatment may be able to convert a small amount of food into pure invigorating blood.

Do not be afraid that you are going to be sick, if your appetite diminishes, in hot weather. Don't take Dutch gin, Schiedam schnapps, plantation bitters, "rot gut," dirty beer, or ale, or porter, and thus impose on the stomach more labor than it can perform, and lay the foundation for summer fevers, dyspepsia, colic, dysentery and other diseases, often prevalent at this season.

Learn an object lesson from the dogs, the donkeys, the geese, and other live teachers in the animal kingdom, which are not fools enough to force down food, when their stomachs do not crave it, nor guzzle down vile stuff for an appetizer.

Care in Eating.—You will be tempted to eat too much at many special occasions. Be on your guard, and stop before you are surfeited. If you feel that you have eaten too much, take a walk, gradually increasing its rapidity, until there is a free perspiration, and continue at this gait till every feeling of discomfort about the stomach or lungs has dissappeared; then cool off very slowly, in a closed room, and do not eat an atom until the second meal thereafter, that is, omit one meal.

Besides, as we have often said, eat and drink moderately, live on vegetables and fruits, avoid tainted meats and fatty substances. Let the children have all the ripe fruit they can eat with moderation. Fruits are intended by the Creator for diet in hot weather, yes, always. Exercise great moderation in all things, and attend to personal cleanliness, and "whether you eat or drink, or whatsoever you do, do all to the glory of God."

Nature is no respecter of persons, not even of presidents; she will punish the trangressor of her laws.

Eating Before Retiring.—There has been quite a revolution of late years in many countries in regard to the connection between eating and sleeping, and it is said that a radical change is likely to take place before

long in the practice of a great many families in England. The popular idea is that eating at night is highly injurious to the constitution. It is now recognized that nature contradicts this notion. Provided a man is hungry and his stomach is in proper condition, the practice is not only unharmful, but rather beneficial. To go to bed on an empty stomach is apt to drive sleep away altogether. Three or four hours before bedtime a substantial dinner or supper should be eaten, and on going to bed some simple food should be taken every night by those who have an inclination for it, and especially by delicate persons or invalids. Persons invariably feel drowsy after a heavy meal, and, on the other hand, wakefulness is often merely an indication of hunger. The digestive organs having finished with it, the blood flows once more to the head, bringing with it consciousness. The prevalent notion seems to be that the digestive organs rest simultaneously with the brain. Physiology does not support this proposition. Innumerable cases can unfortunately always be found of men, women and children complaining of sleeplessness solely occasioned by hunger, the satisfying of which would immediately be followed by sleep.

Drinking Water and Water Drinking.

Use in Moderation.—There is a strong temptation, in warm weather, to drink ice water. A little common sense reflection will convince any one that this is injurious to health. Let us reason together. The temperature of the stomach is about a hundred degrees. This is the natural warmth at which digestion goes on. Swallow cold water, the progress of digestion is at once arrested, and is not resumed until the water introduced into the stomach has been there long enough to be warmed, from the temperature of the ice water, say forty degrees, to a hundred. To accomplish this, heat must be abstracted from the system. Strong, robust persons may not feel it, but the feeble will feel chilly and feverish, digestion is imperfect, the stomach loses its vigor, and the foundation of disease is laid. What is the inevitable, common sense inference? That ice water is injurious to health, if taken at meals; injurious to the most healthy, if taken in large quantities, and to persons in feeble health, if taken at all, beyond a few swallows.

But the chief danger is the shock produced by swallowing the ice water. The blood is driven from its regular course, arrested in its flow, thrown, pos-

sibly, upon the heart, and, if sudden death does not result from apoplexy, there is great danger that the reaction will be such, if not suddenly to produce serious consequences, nevertheless to weaken the efforts of the organs, so that disease of these organs will ensue. Organic diseases have become fearfully prevalent of late years, and one of the fruitful causes thereof is, no doubt, to be found in the indiscreet drinking of ice water.

It has been a "*schwerfrage*" for a long time to decide if iced water is causative of kidney disease, from which it seems to be settled that the American suffers more than other races, and the end is not yet. Some physicians strongly protest against drinking any water or other liquid that is below freezing point. Stomach nerves are quick to resent sudden shocks, and temporary total arrest of digestion follows a draught of iced water or a plate of ice cream. Cool drinks, by all means, but never cold; and no ice cream or frozen stuffs directly after meals.

A series of experiments upon dogs proved that a tablespoonful of ice cream would suspend digestive processes for two hours; and there is no reason to presume that it would act differently in the human stomach. If it must be eaten at all, it is safe only midway between meals or at bed time—and then only for young people, whose stomachs are quickly replenished with nerve energy from well filled centers.

Better, therefore, avoid the use of ice water, than run the risk of contracting kidney disease.

On Use of Ice.—On the other hand ice itself may be taken as freely as possible, not only without injury, but with the most striking advantage in dangerous forms of disease. If broken in sizes of a pea or bean, and swallowed as freely as practicable, without much chewing or crushing between the teeth, it will often be efficient in checking various kinds of diarrhea, and has cured violent cases of Asiatic cholera.

To drink any ice-cold liquid at meals retards digestion, chills the body, and has been known to induce the most dangerous internal congestions.

If ice is put in milk or on butter, and these are not used at the time, they lose their freshness and become sour and stale, for the essential nature of both is changed, when once frozen and then thawed.

Some Good Advice.—Much of the advice given by papers, as to what we should drink, is bad advice, some, indeed, is dangerous. In some cases the good and the bad are so mixed that it takes a level head and considerable common sense to separate the chaff from the wheat. The following can be safely followed.

The addition of oatmeal to drinking water makes it nutritive, satisfying and agreeable to the stomach. For laborers it makes a useful addition to the diet, costs but little and repays the small outlay in the form of in-

creased ability to perform labor either physically or mental.

The heat of the body may be modified to some extent by the use of fluids cooled to any degree from that of the normal standard to the freezing point, and ice itself may be swallowed when necessary to hasten the reduction of temperature. When beverages are taken cooled in this way the amount needed is reduced.

Water, as a beverage, iced or at the ordinary temperature, is frequently modified to render it more agreeable to the palate or stomach, or slightly nourishing or stimulating. The addition of a vegetable acid, such as lemon juice or vinegar, usually with sugar in some form, makes a drink agreeable to the taste, more digestible and slightly nourishing.

Diluted cold tea has long been known as an agreeable, slightly stimulating beverage. For this or any other purpose the tea leaves must not be boiled.

If you are away from home on a hot day, and feel as if it would be perfectly delicious to have a glass of lemonade, soda-water, or brandy toddy, by all means resist the temptation until you get home, and then take a glass of cool water, a swallow at a time, with a second or two interval between each swallow. Several noteworthy results will most assuredly follow.

After it is all over, you will feel quite as well from a drink of water as if you had enjoyed a free swig of either of the others.

In ten minutes after you will feel a great deal better.

You will not have been poisoned by the lead or copper which is most generally found in soda-water.

You will be richer by five cents, which will be the interest on a dollar for one whole year!

You will not have fallen down dead from the sudden chills which sometimes results from drinking soda, iced wated, or toddy, in a hurry.

No well man has any business to eat ices or to drink iced liquids in any shape or form, if he wants to preserve his teeth, protect the tone of his stomach, and guard against sudden inflammations and prolonged dyspepsias. It is enough to make one shudder to see a beautiful young girl sipping scalding coffee or tea at the beginning of a meal, and then close it with a glass of ice-water; for at thirty she must either be snaggle-toothed or wear those of the dead or artificial ones.

Fresh Water the Best Drink.—Fresh spring or well-water is abundantly cool for any drinking purpose whatever. In cities where water is artificially supplied, the case is somewhat different; but even then there is no good excuse for drinking ice-water, because, even if the excuse were good in itself, the effects on the stomach and teeth are the same.

Make a bag of thick woolen doubled, lined with muslin, fill it with ice; have in a pitcher an inch or two of water above the faucet, and let this bag of ice be suspended from the cover within two inches of the surface of the water. The ice will melt slowly and keep the water delightfully cool, but not ice cold. A still

better effect will be produced if the pitcher is also well enveloped in woolen. Again, water almost as cool as it can be, unless it has ice actually in it, may be had without any ice at all, by enveloping a closed pitcher partly filled with water, with several folds of cotton, linen or bagging, and so arranging it that these folds are kept wet all the time by water dripping from another vessel, on the principle of evaporation.

A glass of cool water, not ice water, is the most delicious, grateful and gratifying beverage that a person can take in hot weather, besides costing nothing and leading to no bad habits. Men in glass factories, where the heat is fearful, drink water only, not iced, and are healthy and vigorous. Field hands, on cotton and sugar plantations, drink a mixture of molasses and water. A safe drink for harvesters is water in which oat-meal has been stirred. Butter-milk is cooling, nutritious, and a liver stimulant.

But even pure cold water may be drunk too freely in summer. A person who drinks water, in large quantities in the early part of a summer day, will be more troubled with thirst, during the remainder of the day, than if these cravings had been resisted a few hours.

If the drinking water is "hard," having lime in solution, a teaspoonful of vinegar, or a bit of lemon juice squeezed into a tumblerful, will neutralize the lime, and make the water palatable. If it is murky, the least bit of powdered alum will make it clear as crystal.

To guzzle down glass after glass of cold water, on getting up in the morning, without the feeling of thirst, is a stupidity of which even a horse, a dog, or a hog, would not be guilty.

Drink cold water very slowly. The more thirsty you are, the more necessary it is, to the safety of life, to rinse out the mouth two or three times, before taking a swallow of cold water. A fruit stone or pebble, held in the mouth, or a bit of cracker chewed moderates thirst.

Where you are forced to drink suspicious water boil it, and let it stand in the open air over night, so as to absorb oxygen.

Those who drink but little, even of water, in summer, will be more vigorous, more full of health, and much more free from bodily discomfort, than those who place no restriction on their portions.

Drinking When Very Warm.—Many a person has dropped dead at the pump or at the spring, the result of drinking cold water when overheated, where there is bodily fatigue. Always when you are very hot and fatigued, grasp the glass of water in the hand, and hold it half a minute, and then do not take more than two swallows till you take a rest of fifteen seconds.

Drinking Soda Water.—We do not wish to spoil the soda water business, nor is it likely that we shall, as people will drink soda water, regardless of what we write, just as they will go on to sin, regardless of what the preacher says. It is very certain, however, that

the indiscriminate gulping of soda water is injurious. Not that the drinking of water impregnated with carbonic acid is injurious. *Per contra*, carbonic acid, when introduced into the stomach is wholesome, though it is highly pernicious in the lungs. But soda water is sometimes prepared by means of sulphuric acid, and the sirups very frequently contain injurious ingredients. The lemon sirup frequently is prepared with citric or oxalic acid, which is corrosive and destructive of the lining of the stomach. Many of the fruit flavors, such as strawberry, orange, banana, etc., do not contain a particle of the juice of these fruits, but are a vile and dirty preparation of coal tar, old cheese, etc.

It is infinitely better to quench thirst, in warm weather, with good, pure water, slightly acidulated with lemon juice, and to drink a little at a time and oftener, than to swallow down a large quantity of any liquid, at once, and particularly beer, soda water, mead and similar swill.

Alcoholic stimulants should be especially avoided in hot weather. Liquor no more applies digestive power than the lash gives strength to an exhausted animal.

Polluted Drinking Water.—It is a well established fact that water, when exposed to exhalations and expirations, will become so foully polluted, in a short time, that it is entirely unfit for drinking purposes. Never drink from a pitcher or pail of water after it has stood in a bed-room, school-room, church, or lecture hall for half an hour. It is surcharged with the

poisonous effluvia and exhalations, of the room, even after the occupants are gone, to say nothing of the vileness which it has absorbed, when they are there.

Many a well exists in the country the water from which is unsafe to drink. The water is contaminated through the proximity of the outhouse, which the unenlightened countryman sinks near the well so that both may be convenient to his back door. He wants to "save steps," and so the well, the cesspool or blind drain, the barnyard and the pigsty are all grouped so conveniently together that the water of the well is sure to be contaminated.

Care of the Eyes.

On the Wearing of Glasses.—In passing along public thoroughfares, an observer of faces cannot fail to notice the large number of young persons, particularly girls, who wear glasses. In some cases, no doubt, there is a legitimate necessity for this, but, we are fully persuaded that in others, it is only a craze, and in many a positive injury. There should be no cause for wearing spectacles, except in rare exceptional cases, before age requires it. The Creator has made the eye right, these are, in most instances, the prime causes of myopy. just as he has made the other organs and parts of the body perfect. At least ninety per cent. of short-sightedness is preventable; there is, in other words, no necessity for it, if the eyes are properly cared for, or precautions taken in time.

Work in factories, close application of the eyes in the school room, reading, sewing or working with imperfect light and ventilation, or in too brilliant light; All strainings or exertions of the eye are injurious. God has made the eye so that it is to see everything without effort, with pleasure, without strain or pain. We experience no pain in listening to music, in smelling perfumes, in tasting food, why should the eye be pained in performing its normal work? Only when

put to unnecessary exertion, as above stated, does it shrink from its work, begin to water, and suffer injury. This is the time to stop, and at once to change our employment, if we would save the eye.

Do not Hasten the Wearing of Glasses.—If, however, the eye has been injured, its functions impaired, and near-sightedness induced, we should not resort to spectacles. Here is where the craze comes in. The doctors, of course, want to sell their wares, just as they are anxious to turn their pills, and get rid of them, if anyone can be induced to swallow them. This is all wrong. Let nature, with her recuperative powers, be called in to do her work, before artificial means are resorted to. No eye glasses, no spectacle for them, unless you wish your children to become deformed, crippled, disfigured for life, as so many whom we meet everywhere are. Change the occupation and course of life, at once, and thus save the eyesight. If glasses are resorted to, the effect and consequence will be the same as when medicine is taken, opium for example. Little by little the dose must be increased, and the disease increases in proportion. The concave lens, when resorted to, only spoils the eye more and more, encourages the imperfect vision, instead of correcting it. Give the eye a chance to recuperate and correct the defect, by exercising it in the natural way. That is, remove the cause of the injury, and then exercise it to restore it to its normal state. Hold the object to be seen a little farther away, from day to day, as long as

no pain is experienced, and thus get the natural focus again. Do not use glasses, unless imperatively necessary, or you will spoil your eyes so that the eyesight may never become normal again.

Important Rules.—The following rules and directions should be carefully observed for those with weak eyes:

Reading by twilight ought never to be indulged in. A safe rule is—never read after sun-down, or before sun-rise.

Do not allow yourself to read a moment in any reclining position, whether in bed or on a sofa.

The practice of reading while on horseback, or in any vehicle in motion by wheels, is most pernicious.

Reading on steam or sail vessels should not be largely indulged in, because the slightest motion of the page or your body alters the focal point, and requires a painful straining effort to readjust it.

Never attempt to look at the sun when shining unless through a colored glass of some kind; even a very bright moon should not be gazed at.

The glare of the sun on water is very injurious to the sight.

A sudden change between bright light and darkness is always pernicious.

In looking at minute objects, relieve the eyes frequently by turning them to something in the distance.

Let the light, whether natural or artificial, fall on the page from behind, a little to one side.

Every parent should peremptorily forbid all sewing by candle or gas light, especially of dark materials.

If the eyes are matted together after sleeping, the most instantaneous and agreeable solvent in nature is the application of the saliva with the finger before opening the eye. Never pick it off with the finger nail, but wash it off with the ball of the fingers in quite warm water.

Never bathe or open the eyes in cold water. It is always safest, best, and most agreeable, to use warm water for that purpose over seventy degrees.

Never read or sew directly in front of the light, or window, or door.

Never sleep so that on first awaking the eyes shall open on the light of a window.

Do not use the eyesight by light so scant that it requires an effort to discriminate.

Too much light creates a glare, and pains and confuses the sight. The moment you are sensible of an effort to distinguish, that moment cease and take a walk or ride.

The moment you are instinctively prompted to rub the eyes, that moment cease using them.

The eyes are frequently injured for life, when pupils are seated in school so as to face a window. The seating of pupils should always be in such a way as to face the north, on which side of the school room there should be no windows.

Attention to the Feet.

Attention to Them of Great Importance.—It is utterly impossible to get well or keep well, unless the feet are kept dry and warm all the time. If they are for the most part cold, there is a cough or sore throat, or hoarseness, or sick headache. or some other annoyance.

If cold and dry, the feet should be soaked in hot water for ten minutes every night, and when wiped and dried, rub into them well ten or fifteen drops of sweet oil; do this patiently with the hands, rubbing the oil into the soles of the feet particularly.

On getting up in the morning, dip both feet at once into water, as cold as the air of the room, half ankle deep, for a minute in summer; half a minute or less in winter, rubbing one foot with the other, then wipe dry, and if convenient, hold them to the fire rubbing them with the hand until perfectly dry and warm in every part.

If the feet are damp and cold, attend only to the morning washings, but always at night remove the stockings, and hold the feet to the fire, rubbing them with the hands for fifteen minutes, and get immediately into bed.

Under any circumstances, as often as the feet are

cold enough to attract attention, draw off the stockings, and hold them to the fire; if the feet are much inclined to dampness, put on a pair of dry stockings, leaving the damp ones before the fire to be ready for another change.

Some person's feet are more comfortable, even in winter, in cotton, others in woolen stockings. Each must be guided by his own feelings. Sometimes two pairs of thin stockings keep the feet warmer, than one pair which is thicker than both. The thin pair may be of the same or of different materials, and that which is best next the foot, should be determined by the feelings of the person.

Boots and gaiters keep the feet damp, unclean, and noisome, by preventing the escape of the insensible perspiration and odor which are constantly emanating from a healthy foot; hence the old-fashioned shoe is the best for health and for the strengthening of the ankles, by habituating it to support itself. A piece of brown or other paper wrapped around the foot over the stocking sometimes keep the feet remarkably warm. "Cold feet" arise from the want of a vigorous circulation in them; this is often remedied by putting them in hot water in a wooden vessel, so as to cover the toes; in about ten minutes put both in cold water, the colder the better, of the same depth, for half a minute; the object being to produce a shock, calculated to draw the warm blood to the soles; this may be done on retiring and rising. Nothing should be considered a trouble, which

can have even a slight tendency to keep the feet warm, because there never can be recovery from disease or substantial good health without it.

Congestion of the head, throat, or any organs of chest or abdomen, is relieved by a good circulation in the feet and legs. Being far from the vital apparatus, and thus liable to become cold, they are, in addition, kept in the coldest part of the room. During the cold season the air at the floor is from 15 to 20 degrees colder than that at the ceiling. The anxious mother shows her familiarity of this fact when she says: "Children, you must not lie an the floor; you will catch cold."

Notwithstanding this marked difference, the feet have less clothing than the body. Our chests would suffer in a cold day if they had but a single thickness of cotton and one of morocco. Warmth of the lower extremities is indispensable to health of the head and chest.

Recently we met a mechanic, who resides in our street, walking out on Sunday morning with his little two-year old daughter. The father we have often admired for his immense and vigorous physique. He had on a pair of boots with soles half an inch thick. The little thing at his side wore a pair of red slippers, with soles not thicker than pasteboard. "Why do you wear those immense boots?" we asked. "To keep my throat and lungs all right," he replied. "Is your little girl well?" "She is rather poorly. The doctor says we must take her out in the fresh air." "Do you think

you could come out this morning on this cold, damp walk with slippers?" we asked. "No, sir; it would give me my death." "How do you think your little delicate daughter can escape with those thin morocco slippers?" "Well, it does seem curious; but I don't know much about such things. You'll have to ask the old woman."

The usual dress of children's feet, during the cold season, is a shameful violation of physiological law.

Parents and teachers cannot exercise too much care in inspecting the feet of children, when they have been out on the damp ground. Do not allow them to sit, even for a half minute, in the school room, or in the house at home, with damp stockings. Remember, life and health are at stake, and they are too precious to be risked for the want of a little attention. Either have damp stockings exchanged for dry warm ones, or if this cannot be done, dry the feet at the fire at once.

Get heavy soled shoes for your wife and children, and such as will keep out dampness. We, gentlemen, would catch cold, and die of consumption, within a year, if we should attempt to wear the thin paper-soled shoes, which our wives and daughters and children wear.

What a good thing it is that they are stronger and healthier, and better able to withstand untoward nature than we, their liege lords!

Fetid Feet.

To have bod odored feet is a misfortune, and a source of very great mortification to the refined and sensitive. It may be "born" with some, with others, if not all, it is the result of a diseased condition of the system, or of a neglect of personal cleanliness. There is a peculiar odor emanating from the feet which is, perhaps, always the result of uncleanliness. If daily washings do not remove these odors, a very efficient wash is found in red oxide of lead, one part, to twenty-nine parts of the liquor of the sub-acetate of lead; the first to be bruised in a porcelain mortar, gradually adding the latter; apply a few drops once a week, oftener in summer.

Wash the Feet Often.—Very many do not wash their feet oftener than once during a month; only a few as often as once a week. The feet ought to be washed every night before going to bed, and no stocking, boot, or shoe should be put on a second time, until it has had a whole day's sunning, at least by those who have an ambition to be and feel as sweet and clean as a dew-drop on the rose of summer. Or put two tablespoons of the compound spirits of ammonia (hartshorn) in a basin of water, and wash the face, hands, arms, armpits and feet with it, and the skin is left fresh, clean and sweet. It is perfectly harmless, and costs very little.

A radical treatment for excessive perspiration of the feet, accompanied with offensive odor, is to discard all shoes previously worn; then, with thin Scotch wool stockings, low shoes should be procured, and, if the weather is cold, the ankles should be protected with cloth gaiters. Every night, after bathing the feet with cold water, powdered starch or magnesia should be rubbed well into them, and it is well to sleep in thin socks into which either of these powders has been sifted. It may be necessary, also, to sift the powders into the stockings worn during the day.

Cold Feet.

Physiology and Hygiene.—No complaint is more general than that of cold feet, and yet it ought not to be so. Blood is the warming element of our bodies. Where it circulates freely there is warmth. In accordance with the principles of philosophy and physiology, the circulation ought to be greatest in the lower extremities, and, consequently, the most heat there. Why is this not the case? Examine your shriveled and dried up feet, and the question is readily answered. Look at your toes. They are compressed and crippled appendages, well nigh dead. The reason of this unnaturalness is that the feet are kept, not in shoes, but in boxes which impede the flow of blood, and press out every particle of fluid.

The feet of a small child are round, fleshy, soft. They are as warm as other parts of the body. This is quite natural. They are full of muscles and the blood vessels are surrounded with fatty cushions, from which the fluids have not yet been expressed. As soon as the little one is able to walk its feet are pressed out of shape, and the blood circulation is hemmed, by stockings and tight shoes. Now the era of cold feet is inaugurated. Stockings are presumed to give the feet warmth, whereas, heat comes from the body itself. The tight covering

of the foot not only compresses it and checks the circulation, which creates warmth, but the effete exhalation of the foot is prevented from passing off. The feet perspire, and become effeminate, susceptible to cold. The thicker the stockings, the heavier the shoes and overshoes, the more the warmth of the body, which nature supplies, is emasculated.

Why are your feet cold? Because you have compressed them unmercifully, and forced them out of their natural shape, you wear heavy stockings and shoes, with the expectation that these can generate heat, whereas your circulatory system must do it, your digestive organs are not performing their functions, and you are suffering from diseases of the stomach and abdomen.

The author wears thin, low shoes all winter, with plenty of room in them for the feet, and thin stockings. He often rides twenty and thirty miles in the cold, in midwinter, and never has cold feet.

Wash and rub the feet daily and exercise them abundantly, and you will have warm feet. But, how shall the feet be exercised, so as to become warm? In addition to brisk walking, jumping and running, feet gymnastic exercises are excellent. Elevate the foot slightly and describe a circle by its motion. Do this fifteen or twenty times, and your foot will become warmed, and inspire with new life. Take a stick and strike the sole of the shoe briskly. If you are taking a ride in the cold, wrap several sheets of tissue paper around the feet, and draw the stockings over.

Rubber over-shoes should always be worn when it is damp or slushy under foot, never at any other time. Leather is made so treacherously poor now, that ordinary shoes are not water-proof, and gum over-shoes have become a necessity ; but they are a nuisance and an injury to the feet, if worn in dry weather, however cold it may be, and if kept on in the house. They injure the feet, and should be promptly removed, the moment a person enters a room. Teachers must never allow children to keep rubbers on the feet in the school-room.

Gum shoes, having no iron nails in them are highly injurious to health, as they are non-conductors of electricity, insulating the wearer. In some localities the school authorities have prohibited the use of them.

The Ears.

"Picking the Ears" is a most mischievous practice. In attempting to do this one has many a time pierced the drum and made it as useless as a pierced india rubber life preserver. Nothing sharper or harder than the end of the little finger, with the nail paired, ought to be introduced into the ear, unless by a physician. Persons are often seen endeavoring to remove the "wax" of the ear with the head of a pin. This ought never to be done, first, because it not only endangers the rupture of the ear by being pushed too far in, but if not so far, it may grate against the drum, excite inflammation and an ulcer which will finally eat all the parts away, especially of a scrofulous constitution; second, hard substances have often slipped in, and caused the necessity of painful, dangerous and expensive operations to fish or cut out. The wax is manufactured by nature to guard the entrance from dust, insects and unmodified cold air, and when it has subserved its purpose it becomes dry, scaly, light and in this condition is easily pushed outside, by new formations of wax within. Occasionally wax may harden and may interfere with the hearing; but when this is the case, it is the part of wisdom to consult a physician and let him decide what is the matter and what the remedy. If one can not be

had, the only safe plan is to let fall into the ear three or four drops of tepid water, night and morning; the saliva is better still, for it is softer and more penetrating, but glycerine is far preferable to either; it is one of the blandest fluids in nature and very rapidly penetrates the hardened wax, cools the parts and restores them to a healthful condition. If in a week, there is not a decided improvement in the hearing, medical advice ought to be had at once, as next to the eye, the ear is the most delicate organ of the body.

Boxing is an inexcusable brutality; many a child has been made deaf for life by it, because the "drum of the ear" is a membrane, as thin as paper, stretches like a curtain just inside the external entrance of the ear. There is nothing but air just behind it and any violent concussion is liable to rend it in two, and the "hearing" is destroyed forever, because the sense of hearing is caused by the vibrations of this drum or "Tympanum."

Exercise.

Bad weather is no excuse for not going to pay a debt; it is no excuse to the faithful Christian for being absent from worship. The same is the case with exercise. Moderate, daily exercise in the open air, is worth a thousand times more than all medicines. The exercise must, however, be regular, regardless of the weather. If exercise is needed at all, it is necessary in rain and cold and heat. We eat in all weather, so must we exercise. The very energy and moral courage which enable a man to take out-door exercise, regardless of the weather, is of itself a means for the cure even of serious diseases.

The Weather Should be no Obstacle to taking out-door exercise, but the clothing and protection of the feet must be in accordance with the weather. Colds are are not caught by going out regularly, even into all kinds of weather, provided the body is properly protected, but they are caught by sitting in heated, unventilated rooms, and then an occasional exposure. Even the consumptive, who exerts himself, and takes regular, careful exercise, going into all kinds of weather, will live, while, if he shuts himself up in his hot room, and sinks into his rocking chair, he will die in a short time. What is true of the consumptive and sickly is doubly

true of the well. As long and as regularly as we eat we must take exercise, to work off the effete particles.

Taking such deaths within a few years as those of Grant, Matt Carpenter, Zach Chandler, Hancock, Hendricks, Arthur, McClellan, Logan, David Davis, Gen. Miller, Vanderbilt, and many less prominent but widely known men, and it may be ascertained that their deaths were due to high living and sedentary habits. Logan was not rich, and therefore could not give many dinners; but he was powerful, or promised to be so, and he was a favorite with people who could give dinners, and he suffered in consequence. To those who give and to those who accept too much eating and drinking are equally unfortunate.

The world laughs at Gladstone, chopping down his almost daily tree at Hawarden, as a crank, but in consequence of tree chopping and other healthful exercise Gladstone is a power in the world at eighty years of age; and Emperor Wilhelm, who took his daily horseback exercise, was a very healthy old boy at ninety.

How many eighty-year-old able bodied men in public life have we in the United States? Washington living and the packing of heavy dinners here and there about the country uses Americans up at a time when English statesmen are at their best. Bancroft, the historian, was over four score when he died, but he took his daily long walks, for over twenty years. But Americans with the physical qualities of Bancroft are scarce.

What our prominent and well-to-do people need is

temperance in eating, and an abundance but not excess of exercise. More of plain bread, beef and tea, and less of turtle, oysters and wine; more of active exercise and less sedentary occupations; more of walking and less of carriage riding, and so better health and longer lives. One thing more they should observe: The design of nature was to make eating and drinking a benefit, not a detriment, to the body; and according to that wise prohibition, cheap food, which is the most easily obtained, is the best food, so that it be not foul nor corrupt with decay or adulteration before being taken into the system. The man who attempts to eat out his income after it passes a reasonable sum will find his great income a barrier to his happiness and a standing menace against his life. What he and all such should do is to live moderately and exercise freely.

Hard Work Never Killed Any One.—It is the abuse of hard work that is guilty of so many murders. The commonest malady which breaks men down nowadays is, we are told, overwork. But when we come to analyze it, we find that the overwork of the doctors and the hard work of real life are very different things indeed.

Overwork, in its medical meaning, is a violent abuse of the mental and physical powers. Men subject themselves to great physical and mental strains in order to accomplish certain ends. They strive to offset or replace the natural decay of their forces by artificial means, they live unnatural lives, seeking stimulus and

relaxation in excitement when they should find them in calm exercise and sedate repose, and in time a crash comes and they succumb to overwork!

Meanwhile the hard workers, of whom the world is full, go on laboring and living far into green old age. They put nature to the test, but they do not outrage her. They do not bolster exhaustion up with dissipation, or replace nature by art. They perform more labor in the same length of time than the overwork of any of their rivals perfect, and are only unhappy and unhealthy when they are idle, and their blood runs sluggish for want of exercise.

Health Improved by Work.—A story with a pathetic leaning has appeared in a recent issue of a leading newspaper, (says the *Medical Record*), detailing the case of a rich invalid lady who was suddenly reduced to poverty, and whose changed condition demanded the performance of her own household duties. As if, however, to prove that all evil is not unmixed with good, we are informed that by the forced exercise of her new functions at the washtub, the ironing-board and the cooking-range, she became strong, her aches disappeared, and her sleep was sound and refreshing. Although it was extremely sad that the calamity of forced work should have fallen upon such a delicacy of femininity as possessed by the unfortunate subject of this healthful moral, all of her friends stand ready to congratulate her on the change so radically wrought.

Influenza or Grippe.

Not a New Thing.—We never had it, never expect to get it, but we have seen so much of it, that we feel competent to give some advice. The grippe is possibly only an old disease under a new name. It was formerly known as influenza.

Hippocrates recorded the first authentic account of an epidemic of influenza, in the year 420 B. C., and eight years later another invaded the Athenian armies. The first well authenticated records however, are of the thirteenth and fourteenth centuries, since which time there have been frequent visitations. The ancients supposed the epidemic to occur in cycles of 100 years. The epidemic of 1832 originated in China, and 1836 prevailed in Europe, and reached this country in a mild form in 1843 and again in 1847, both visitations probably being a continuation of the epidemic of 1832. Stephen Girard died from the effects of it in 1833. We say from the effects of it, for, in itself this disease is not likely to prove fatal. It is, however, frequently followed by, or runs into pneumonia, consumption or similar diseases. The constitution of those who are attacked by it is already somewhat weakly, or else becomes enervated under it. In this condition the system is easily invaded by kindred diseases, which prove serious.

To raw spring weather, which continued with scarcely an interruption, may be largely attributed the prevalence of this unusually fatal malady, whose attack in the primary stage so nearly resembles an ordinary influenza as to give little apprehension of its dangerous character. We confess to but scanty knowledge of this strange malady. It would seem to make its main attack upon the weaker and more impaired organs or members of the afflicted. The brain, heart, lungs, liver, kidneys, do not escape, if suffering from any chronic weakness. Sometimes the point of attack is in the joints of the limbs, accompanied with severe pains and inordinate weakness. Then again the whole nervous system is assailed. Its ravages are so swift that death is oftentimes near without being suspected. The wisest treatment is found to be careful home nursing, under the direction of a skillful physician, with sufficient foresight to assist nature in her efforts to overcome disease without paralyzing her energies by a too free use of drugs.

The disease commences with a shivering, or a feeling of coldness down the spine, with a hot, dry skin, quick pulse, thirst and headache. Sometimes these symptoms come on suddenly, sometimes they develop slowly in two or three days. If they come on suddenly, intense frontal headache, with aching pains over the eyes, is generally the first symptom.

The symptoms of the disease are similar to those of a bad cold, chilliness, headache, etc., followed by

high fever, and aching of the bones. It has also been called "bone break fever." The plant called "bone set" derives its name hence, since the tea prepared from this herb was used among the older people as a remedy.

Nostrums will not Cure it.—Our observation has been that no nostrum, not even whisky, however highly recommended its use may be, as a preventive or curative agent, by those who are fond of it, will ward it off. Neither will asafœtida, onions, camphor, nor any drug. Nevertheless, the ounce of prevention is always the best, and what is that? First, and above all else, maintain a high state of health. The robust are seldom attacked by it. In exceptional cases, it is true, the strong and healthful are attacked, but this is not the rule. The weakly, the aged, children and those predisposed to frequent attacks of sickness, usually become victims of the grippe. Here, as in other diseases, the remark holds, that some persons seem to be "attacked by every complaint that goes around." The explanation is that there is a predisposition offered by an emasculated constitution.

Build up the System.—How can a high state of health be maintained or attained? By building up the system, and observing the laws of health. Several things are necessary to this end, and, among these may be named a temperate life, regular habits, wholesome food and plenty of it, daily exercise, avoiding unnecessary exposure, etc. The opposite of this, intemperate eating and drinking, and especially improper articles of

diet and drink, such as much fat, sweetmeats, condiments, alcoholic stimulants, etc.; indulging the appetite at unsuitable hours, keeping late hours, robbing oneself of rest and sleep, turning night into day, exposure, particularly over-exertion, over-heating and sudden cooling, sitting in a draught, throwing off the clothing, etc.; these are the fruitful sources of this and other sickness.

When these few simple suggestions are observed, experience has taught us, in our own case, and hundreds of others brought to our notice, a person with a healthy frame is reasonably secure from attacks of the grippe. If, however, you become subject to it notwithstanding the precautions, go to bed, and remain in it, and in a warm room, until relieved. Do not force yourself out too soon. Eat all the wholesome food which your stomach will digest. Send for a physician and follow his advice.

Keeping rooms well warmed and ventilated is the best protection against it. The remedy is the same as that for a cold.

How to Aid the Injured.

In Case of Accidents.—Dr. Rush wrote more than a hundred years ago, that it is every teacher's duty to instruct children what to do in case of an accident, and that no child should be permitted to come to school, even a single term, without being drilled in how to furnish aid in case of an emergency. It is very important to instruct children, even at home, when they are yet small, how to maintain their presence of mind, so that in an accident, they can render efficient assistance. Not a moment should be lost, as a few minutes, in many cases, may involve a precious life.

An external hemorrhage can be stopped by making a tourniquet, by tying a handkerchief around the part of the body where the severed artery is, and twisting the handkerchief with a stick. Internal hemorrhage of the lungs or stomach can be stopped by laying cold cloths on the breast or abdomen. Cold water is the first remedy for a bruise, afterward laudanum may be applied with advantage.

When children get peas or shoe buttons in their ears or noses, a pair of pincers should be used to pull them out. A bit of meat lodged in the throat can be plucked out with the thumb or fore-finger, and a

hard substance, such as a marble, may be forced out by vigorous slaps on the back, which expel the air from the chest through the throat, and the air carries with it the marble. When this treatment fails, the patient may be stood on the head with advantage.

Splints may be extemporised for a broken limb. The limb must be first bared by cutting away the clothing. A bit of flannel is laid next to the skin, then a stick or the substitute for the splint, is pressed upon it by bandaging, beginning from below. In the case of a compound fracture, which is when the broken bone has forced its way through the skin, a warm wet cloth must be laid over the skin before the splint is applied.

If an individual is endowed with common sense and can exercise self-control when necessary, a slight knowledge of physiology will enable him to act in an emergency.

When an Artery is Cut.—A boy is brought home with a severe cut on his arm. The blood spurts out of the wound showing that an artery has been severed. It is fortunate if a member of the family can come forward and bind two pieces of cloth around the limb directly above and below the wound; the blood will cease to flow, and even if there should be unavoidable delay in the arrival of the doctor, he will be able to save a life that would certainly have been sacrificed if the prompt treatment mentioned had not been resorted to. Precious moments

have been lost while "waiting for the doctor" who, when he does arrive, frequently finds the patient beyond mortal aid.

Rusty nails make ugly wounds, which, if not attended to at once may cause great suffering—perhaps death. Smoke the wound with wool or woolen cloth; fifteen minutes in the smoke will remove the worst class of inflammation.

Burns.—The terrible pain caused by being severely burned may be almost instantly relieved by applying a mixture of strong, fresh lime water mixed with as much linseed oil as it will cut. Before applying, wrap the burn in cotton wadding saturated with the lotion. Wet as often as it appears dry, without removing the cotton from the burn for nine days, when a new skin will probably have formed.

When One's Clothes Take Fire.—The instant one's clothing takes fire the best thing to do is to at once lie down and roll over and over, seizing the nearest rug, cloak, strip of carpet, quilt or blanket to wrap around the body and smother the flame. This quickly done will put out the fire. The immediate application of water occurs to every one where water is accessible. After the flames are extinguished cover the parts burned with lime water and oil (either linseed oil, olive or lard oil), mixed equally, using linen or muslin that is wringing wet. Do not remove the cloths; keep them wet by pouring the mixture upon them.

Burns, blistered skin, sores, chapped hands and

even diphtheria and croup may be healed by the application of glycerine. Glycerine is the essence of oil, and when applied, permeates the body, even penetrating the solid bone. It is one of the best applications known. The hands should be washed in soap and warm water, on going to bed, a little glycerine rubbed into them.

Bites and stings of insects, such as mosquitos, wasps, bees, flies, midges and even snakes, are often cured by washing the parts freely with a strong solution of aqua ammonia (hartshorn).

Sunstroke is prevented by wearing a silk handkerchief in the crown of the hat, or green leaves, or a wet cloth. Those who are compelled to be out in the hot sun at mid-day should eat but little meat, and live on coarse bread, fruit and berries, and have abundant sleep. Wash the scalp in cold water several times a day, and keep the surface of the body clean by rubbing it with a damp towel every night before going to bed.

For Frost Bites and Freezing.—When feet or hands have been so chilled as to be almost frozen, gradually warm them by first rubbing with snow or plunging the injured part into ice water or other cold liquid. Never bring a person to the fire until the frozen part is thawed. If a person is unconscious from cold, remove the clothing quickly and rub all over briskly (always rub toward the heart) with a fresh brush or the hand enveloped in a mitten, piece of flannel or woolen cloth. Artificial respiration must be

tried—that is, lifting the arms from the sides of the body to the back and top of the head and bring them down again to the sides. As quickly as the patient can swallow give him a teaspoonful of brandy or whisky in hot water every fifteen minutes and then put him in bed well wrapped up and protected from chilling by placing hot water bottles or bags at the armpits, feet and back.

A kind of cushion of powdered ice kept to the entire scalp, has allayed violent inflammations of the brain and arrested fearful convulsions induced by too much blood there.

All inflammations, internal or external, are promptly subdued by the application of ice, or ice-water, because it is converted into steam and rapidly conveys away the extra heat, and also diminishes the quantity of blood in the vessels of the part.

A piece of ice laid on the wrist will often arrest violent bleeding of the nose.

Headache.

Causes.—This distressing complaint results from varied causes. Overdoing, overeating, overheating, lack of sleep, get the nerves of the stomach in a state of rebellion. In many cases there is a cure. Prevention by a careful diet and proper rest, is the wisest course. A little good baking soda in water often gives prompt relief, or powdered charcoal, two teaspoons in half a glass of water.

Sick Headache.—Sick headache is sickness at stomach, combined with pain of the head, generally on the left side. It is caused by an over-abundance of bile in the stomach. The causes of too much bile are: insufficiency of exercise to work it off, late suppers, heavy meals, indigestible food, eating too much of a favorite dish, over-fatigue, great mental emotion or severe mental application. The latter is frequently the cause of it among school children, especially when they sit in school with damp feet. A difficult lesson, hurry to work out a lesson, worriment over a problem or knotty question frequently cause headache of pupils. Irritation, being bothered with a recitation, a troublesome noisy school, especially on a dull day, causes the headaches of teachers.

As in every other disease, so in headache troubles,

an ounce of prevention is better than a pound of cure. Avoid the causes. Do not overload the stomach. Eat food which is easily digested. Take plenty of exercise and fresh air. Avoid constipation. Preserve an equanimity of mind and temper.

To get rid of a headache, originating from the stomach, the best thing to be done is to empty the stomach. Anybody can do this, when there is nausea, by reaching into the throat with the finger. A less heathenish way is to take a glass of warm water and stir into it a tablespoonful each of kitchen mustard and salt. Vomiting will always follow this experiment in less than two minutes. The headache will be gone after a short rest or nap.

In a school-room, the most violent headache can be cured, by opening the windows and introducing fresh air, or by sending the pupil out of doors, for ten minutes, to inhale pure air.

One in authority says: "Sick headache is often periodical, and is the signal of distress which the stomach puts up to inform us that there is an over-alkaline condition of its fluids; that it needs a natural acid to restore the battery to its normal working condition. When the first symptoms of a headache appear, take a teaspoon of lemon juice clear, fifteen minutes before each meal, and the same dose at bed time; follow this up until all symptoms are passed, and if not an exceptional case you will soon go free from your unwelcome visitor.

A teaspoonful of finely powdered charcoal in a half a glass of warm water gives marked relief, as it absorbs the gases produced by fermentation of undigested food.

Headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

A Few Hints for the Benefit of Nervous and Over-worked People.—The radical, permanent cure for sick headache in weak, nervous women must combine the following:

A general toning up of the system.

Regularity of the habits.

Plenty of sleep at the right time.

A powerful exercise of the will to keep up a cheerful, quiet, easy frame of mind.

As to immediate relief there is nothing better than this method.

Get your druggist to make for you a strong solution of:

Menthol, half ounce. Alcohol, one fluid ounce. Mix.

For external application, use this tincture full strength. Paint it right over the pain. Then take half a glass of hot water and add from three to ten drops of the tincture, inhale the fumes until it cools off, so that you can drink it, and remember that it should be taken as hot as possible.

The Brain Worker's Headache.—There is another headache which comes from unusual exhaustion

and is terribly acute. It is the headache of the brain worker.

It can always be stopped, however, by taking a fair dose, say six grains, of quinine at bedtime and a good night's sleep.

Then too we have the traveler's headache; even this may be avoided.

First, do not work yourself up into a nervous frenzy of hurry by trying to do a thousand and one things and then rush to catch a train.

Do not worry all the way to the station about the things you have left undone.

An excellent plan is to take a few raisins in your pocket and eat them when you feel tired or relaxed. Raisins are peculiar, and while I would not advise you to eat many on ordinary occasions—they are indigestible—still they will give an empty stomach plenty of work; and their stimulant effect upon a tired, exhausted person is quick, effective and pronounced.

"Heart Failure."

The Heart's Work.—We almost daily see reports of deaths attributed to heart failure. Now, what I wish to ask is, what is it the heart fails to do? I have always considered the heart the most perfect organ of the animal economy, and one that never shirks its duty. It commences its labor during the early stages of pregnancy, and goes on until the last moment of life, without one second's rest, night or day, often without the intermission of a single pulsation for 100 years or more. At every beat it propels two ounces of blood through its structure. At 75 pulsations per miuute, nine pounds of blood is sucked in and pumped out. Every hour, 540 pounds; every day, 12,960 pounds; every year, 4,730,400 pounds; every 100 years, 473,040,000 pounds. Verily a good organ and all performed without one moment's rest.

The Heart's Neighbor.—Now, the heart has the meanest and most contemptible neighbor that ever an organ had, namely, the stomach; a drunkard, a glutton, a trespasser, and almost everything else that is bad. Verily, it ought to be walled in and compelled to keep on its own grounds.

The stomach lies directly under the heart, with only the diaphragm between, and when it fills with gas it is like a small balloon, and lifts up till it interferes directly with the heart's action. The stomach never

generates gas, but when filled with undigested food fermentation takes place and gas is formed, and the interference depends upon the amount of gas in the stomach. To overcome this construction the heart has to exert itself in proportion to the interference, more blood is sent to the brain, and the following symptoms are the result: A dizzy head, a flushed face, a loss of sight, spots or blurs before the eyes, flashes of light, zigzag lines or chains, etc., often followed by the most severe headache. These symptoms are usually relieved when the gas is expelled from the stomach.

Now, when this upward pressure upon the heart becomes excessive, more dangerous symptoms supervene, a larger quantity of blood is sent to the brain, some vessel ruptures and a blood clot in the brain is the result, and the patient dies of apoplexy, or, if he lives, is a cripple for lif

When a sick person, or an old one, or one with feeble digestion sleeps, digestion is nearly or quite suspended, but fermentation goes on, and gas is generated as before stated.

A man is found dead in bed, and the medical attendant pronounces it the result of heart failure, and such is the certificate of burial given. Now, the man was out, partook of a late supper, and ate roast beef, turkey, chicken, lobsters, oysters, mince pie, plum pudding, ice cream, cake, an orange, nuts and raisins, three or four cups of coffee, etc., went home at midnight, retires and dies of heart failure before nine o'clock the next morning. What did the heart fail to do?

House Cleaning.

Should Include Unseen Places.—When hot weather is suddenly coming upon us, is the time to see that refuse substances be removed; if they have been allowed to accumulate in cellar, garret, back yard, or anywhere else. The civilization and sanitary condition of a household are not to be adjudged by the surface and front door and yard appearance, but by what is behind and underneath. The German proverb, ***oben Hui und unten Pfui***, is too often applicable to the state of modern fashionable society. Too often it is show rather than use. The front rooms and parlors are but little occupied, kept for show only. The best bed room is kept in scrupulously neat condition to be occupied once in six months, while the room where the children sleep and which is most in use, is left to take care of itself. The parlor is closed as carefully as a prison, barred doors and shutters, and not a ray of light, nor a breath of fresh air permitted to enter from Monday morning till Saturday night. Costly fences are put up along the street. Everything is in "apple pie" order where no member of the family is ever allowed to enter, but the premises where they spend ninety nine one-hundredths of their time when at home, is often literally unfit for occupancy by human beings. Back lots

have been neglected for years, where masses of reeking filth give out emanations as noxious as any sewer gas. Yet right around these lots many people live day and night,—in summer time with doors and windows open, breathing the air thus fouled all the time. In many instances these premises, from long continued neglect, have become so foul that no ordinary surface scavenger will avail. The soil is saturated with filth to the depth of ten or twelve inches, and should be removed bodily, or else thoroughly disinfected.

Very often, however, great improvement can be made by removing rubbish, garbage, and other surface accumulations. All this work should be done at once. Thus when the hot weather sets in, nothing more will be needed than daily care in preventing daily accumulations.

Always and everywhere at this beautiful season must be urged the supreme importance of cleanliness, and the beneficial influence of fresh air and sunshine all in and around our living and sleeping rooms. God has given us a paradise. Too often we make it a pest-house.

Look to the Cellars.—Not one cellar in fifty is as clean and dry as it should be. Old barrels, boxes, casks, bottles, ashes, remnants of wilted and rotting potatoes, turnips and other vegetables are found therein. The gases arising from these, which, sometimes can be recognized by their bad smell through the entire house and even in the yard and street, but when most danger-

ous are odorless, cause the worst forms of typhoid and other malignant fevers. These gases which always rise from the cellar, penetrate the crevices of the flooring, and are confined in the unventilated, unaired parlors and chambers, especially the sleeping rooms on the highest floors. From these considerations the cellar should be the cleanest apartment of every house. On these beautiful May days when all nature is attired in her best, sweetest and cleanest, every cellar should be thoroughly cleaned and sweetened. Every avenue of grating, door and window should be left open day and night for at least a week. The doors, walls, ceilings or joists should be swept several times; the walls and ceilings whitewashed with two or three coats; the floor well washed and rinsed with water, and unslacked lime or powdered charcoal liberally scattered, so as to absorb all odors arising *from moist or dark places.*

Kitchens.—The sun should shine into the kitchen the greatest part of the day, and into the back-yard or rear of the kitchen, nine hours of every twelve of daylight, every day, at this time of the year. There should be no spot about the house to receive or hold standing water, whether it be the rain from the sky, the contents of the wash-basin, the slop-bowl, or the water pail, nor should any of these, or any other vessels containing liquids, be emptied into the yard. No civilized person should ever be found guilty of doing such acts. The kitchen sinks, and places where dishes are washed and cooking is done, should be scrupulously and conscien-

tiously cleaned, scrubbed, dried and deodorized with fine charcoal, daily. Health, comfort and a relishing appetite depend largely on these things.

Dining-room carpets receive a great deal in the *debris* of food. It is carried about in the air, and in combination with vapor, attaches itself to woolen and cotton textures of every kind, to paper hangings, to whatever will absorb moisture. A house whose entry smells musty is dangerous. Avoid it. Don't live in it. Keep your children out of it.

Back Yards.—Diseases of various kinds no doubt, frequently arise from filth and dirt which is permitted to accumulate in back yards. The slops of the kitchen are poured out into the yard breeding malaria, fever and diphtheria. Besides if there is a well within fifty feet of the spot, where these slops and refuse matter are thrown, the poison will eventually permeate the ground and defile the water, proving a fruitful source of typhoid fever.

Children and young people should be taught to be cleanly, as cleanliness is promotive of health and morality. To keep the front yard clean, and allow the back yard to be filthy and unpresentable, is to encourage deception and hypocrisy, two of the worst forms of immorality. Even down to the blacking of shoes, children should be taught, that to blacken only the front and neglect the back part of the shoe, is Phariseeism and destructive of honesty.

Therefore, from the heel of the shoe to the back

yard of the house, insist on cleanliness, neatness and healthfulness.

Have a hogshead or large box fitted up in one corner of the yard, and make it a rule to throw into this old cans, boots broken dishes, and all such rubbish, and when there is a great accumulation, to bury or burn it. Do not allow anything to be thrown about. Have drains made to convey all slops entirely away from the house.

An ounce of prevention is better than a ton of cure. It is vastly easier to avoid sickness than to cure disease after it has invaded the household, and infinitely cheaper. Do your duty in attending to the principles of hygiene. Do not saddle your faults indiscretions, neglects and sins on Providence. Trust in God but also keep your powder dry.

To purify gutters, sinks, hog pens etc., use one pound of copperas, (sulphate of iron or green vitriol) in four gallons of water, poured over three or four times. It will remove all unpleasant odors.

Health.

Why Some are not Healthy.—In our intercourse with different classes of people, following different occupations, we find that those who are subject to ailments and complaints are the rule, while those who are entirely healthy are the exceptions. Why should this be so, and is it necessarily so? Why people are unhealthy may in very many instances be explained. Some are unhealthy because they choose to follow occupations which are injurious to their health. In our travels through the West recently, we found that it was almost impossible to hire female help. This is to a certain extent also the case in the East. Many girls have imbibed the false notion that it is degrading to do house and kitchen work, and others conceive the idea that factory work pays better. Both are delusions. It should require no argument to show that house work is honorable. It does not pay better to engage in factory work, tailoring, cigarmaking, etc. House and kitchen work, and such outdoor exercise as belongs to it are healthful, and for this reason it pays best. Doctor bills and a broken down constitution do not pay. We pass dozens of pale-paced, crooked-spined girls on their way to and from the factories every day, when going to our office. Fifty per cent. of these girls will be in their

graves, the victims of consumption, in less than twenty years, before they have half outlived the days assigned to them by their great Creator. Fifty per cent. of those who may not die an untimely death will turn thin, haggard, crabbed old maids, whom nobody will want to marry, or if married they will become peevish, painy, sickly wives, who can never fulfil their great Creator's design. Does it pay to lose health and beauty, in this way, when the remedy is at hand?

Again, farmers and their wives and daughters are often unhealthy. It should not be so, for farming is a most healthful occupation, yet how few farmers does one meet who do not have their aches and complaints. The young farmer's wife is not enjoying good health, even the girls and boys have constant ailments, so that it is difficult to find a farmer's house where some one not is complaining.

Farmer's Health and Overwork.—Much of this ill health of farmer's families is attributable to overwork: Farmer's families do not sleep enough. Eight hours sleep is not too much for a hard worker. The eight hour law is a dead letter with the farmer. He works fourteen. This is too much. He allows himself no rest, nor recreation during the week, and even works on Sunday in the busy season. This is enough to break down the strongest man. The young wife of the farmer is out at sunrise, and by the time her day's work is done it is ten o'clock at night. No woman can continue to do this with impunity. She

invariably breaks down, and becomes miserable for life. There is a constant strain, no let off. Wreck and ruin are the result.

Eat What they Can't Sell.—Besides, farmers and other workers do not feed well enough. They have plenty to eat, but they stint themselves constantly. They raise poultry, but they sell it. They have plenty or milk, but it brings two cents a quart. They sell it, and do not allow themselves nor their children a mouthful. They live on salty bacon, rancid butter and innutritious diet. They do not allow themselves any good fruit as long as there is a market for it. They stint themselves in their abundance, and, while they do so, they imperil their health and that of their children.

Good beefsteak, fresh eggs, good bread, plenty of rich milk, not the skimmed article, which even contains no nourishment for hogs, healthy fruit, an occasional chicken dinner, eight hours sound sleep, not over twelve hours work a day, an occasional holiday, an entire Sunday's rest, a few weeks off in the woods, or to some cheap summer resort, the best room in the house for the parents to sleep in, instead of reserving it for strangers, to be occupied once or twice a year, a little fun and pleasure at home, an ice cream party occasionally, to which the neighbors are invited; these are as necessary for the farmer as for the king, the merchant, the preacher, the banker, and they can be enjoyed by him just as well. It is cheaper for him to have them than to pay doctor bills, and eke out a miserable existence through life's later years.

How Health is Ruined.—A young man comes to town from the farm, or a young lady, too, for that matter, with high health, high hopes, and a high ambition, backed by a good family, a good education and good moral principles. Within six months health is often broken down, and how? They are employed in a damp basement, in a counting room, keeping books, writing letters, etc., or, they stand behind a counter, in an insufficiently lighted, illy ventilated room, from seven in the morning to nine in the evening. The few moments given to "swallowing" dinner and supper are entirely insufficient for masticating the food, and the mind is all the time jaded, with the thought that they must hurry back, at the earliest possible moment. When they return, the coat, sack and hat are thrown off and chilling takes place. Sometimes for hours, also, when engaged in store, the urgent calls of nature are deferred, a dull headache is the immediate, while pain and suffering may be the remote and life-long result.

Another illustration. The farmer, or the farmer's wife, very frequently have a number of ailments, suffering from colds, rheumatic pains, pains in the stomach, aches and pains from top to toe. The appetite is good, only there is a weakness, work goes hard, all they can do is to grunt and eat. Eat sodden bread, greasy cakes, pie, preserves, doughnuts, eat at regular meals, and between times. Is it a wonder that such people are complaining? They live and act as if they had no brains. They can not fail to ruin their health.

What is the next resort? Medicines are taken to stimulate, but the stimulus is only that of the lash applied to the back of an exhausted donkey. It either kills, or induces an unnatural effort, which can only be exerted temporarily. But, "it seemed to do good for awhile." So it did, yet the reaction is always equal, not only to the action, but leaves the already over-tired, broken-down body, a little feebler, more exhausted, at every such unnatural effort, and expenditure of vital forces. Ere long the entire breakdown will come, the ruin to body, soul and estate.

What is the remedy? Nothing short of an entire change of the practices of life, both in work, diet and recreation, a building up of the system from below. An entire physical conversion is the only salvation.

Popular Errors Concerning Health.—It was formerly said that it is injurious to health to eat at night, especially before retiring, that a person should retire on an empty stomach. Good scientists and physicians now say that a person should never go to bed with an empty stomach, that doing so is an injury to the digestive organs, subjecting them to an unnatural strain.

Professor George H. Rohe, of the College of Physicians and Surgeons, Baltimore, in a recent lecture on "Some Popular Errors Concerning Health and its Preservation," quoted the saying: "One man's meat is another's poison," and showed that, while idiosyncrasies with regard to certain articles of food or medicines do

exist, they are far less frequent than is generally believed. Articles of food which ordinarily disagree may be better borne if differently cooked. A more serious error is that one should rise from the table hungry. The sensation of hunger is a cry of the tissues for food, and should always be appeased. Much of the ill-health of brain workers is due to a lack of sufficient food. It is impossible to lay down hard rules as to the quantity of food one should eat, but the remarks of the old country doctor who had lived in good health, doing hard work until four-score and ten, might be taken as examples: "I have always eaten when I wanted to eat, as much as I wanted, and the best food I could get."

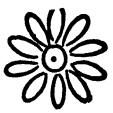
Health in Youth.—Late hours, irregular habits, and want of attention to diet, are common errors with most young men, and they gradually, but at first imperceptibly, undermine the health and lay the foundation for various forms of disease in after life. It is very difficult to make young persons comprehend this. They frequently sit up as late as twelve, one or two o'clock, without experiencing any ill effects; they go without a meal to-day, and to-morrow eat to repletion, with only temporary inconvenience; one night they will sleep three or four hours, and the next nine or ten; or one night, in their eagerness to get away into some agreeable company, they will take no food at all, and the next, perhaps, will eat a hearty supper, and go to bed upon it. Indeed, nearly all the shattered constitutions with which too many are cursed, are a result of a disregard of the plainest precepts of health in early life.

Better than to Pay the Doctor, it is to take care of health. Better to eat healthful food, to pay the miller and the butcher, than the doctor, though the doctor may not say so.

Liver Complaints.

Heat and Fatty Diet.—Summer is always favorable to the production of liver complaints, especially if too much fatty diet is consumed and exercise is not proportionate. The bile is composed mainly of those waste portions of the human machine, which, having subserved their purpose, are no longer needed, but require to be removed from the body; and in the wonderful wisdom and economy of the the great Architect of our frame, and of all worlds, the very passing out of this waste, is made to answer a purpose fundamentally essential to all human health; for, after having eaten a meal, the bile is conveyed into the intestinal canal, drop by drop, causing an action which results in the regular daily motion of the bowels, without which there can never be good health for forty-eight hours at a time; hence "constipation" shows that the liver is not working healthfully, and

remedies are required which "act upon the liver." There are two safe unmedicinal modes of acting on the liver, of starting the machinery of life, when it tends to stand still; go to bed, wrap up warm, make hot applications to the feet, drink warm teas abundantly, so as to cause profuse perspiration for two or three hours. A better plan is, go to work in the open air and keep at it, to the extent of exciting a gentle perspiration, until tired or very hungry, for whatever starts perspiration on the skin, starts the wheel of the liver to working, and the person gets well apace.



Kidney Troubles.

This Deceptive Disease on the Increase. Every one who has been at all observant must know that kidney troubles have increased very much, within the past quarter of a century. Many of our best men in the different professions and particularly business men, have died in recent years of Bright's disease. The disease is very deceptive, and its victims are frequently carried off quite suddenly. Physicians tell us of cases where persons suspected no danger, felt comfortably well, and yet, it was found on examination that they could live but a few months. We have ourselves known instances where in less than a week the fell destroyer did his work, though disease had not been known to have invaded the system. Not long ago we attended the funeral of a young lady of less than twenty years, who felt strong enough to go to church on Sunday, and yet by Tuesday night she was a corpse. She had, it is true, experienced some lassitude and had an inordinate thirst, yet nothing was thought of this till she took her bed, fell into a delirium and, in two short days, had passed from the stage of life.

Over Mental Work.—Derangement of the kidneys is a common result of mental overwork. When

they fail to carry off the waste matter of the system uric acid, that deadly poison, accumulates, and sneaks through all the blood channels. The whole system becomes a kind of cess-pool and every function is impaired. Unless help is found, the "general breaking up" soon follows.

The reason why so many professional men, particularly those of sedentary habits die of kidney disease, is mental strain, and the want of bodily exercise, They sit in their offices with their minds bent on business, often worried, swallow their meals hurriedly, eat bread finely bolted, often having alum mixed with it; instead of walking home, or when they attend to errands, they take the street cars, or have their own carriages at hand to carry them to and fro, never walking a step if they can avoid it, even passing to and from the second and higher stories of buildings on elevators, instead of walking up and down the stairs. These are some of the reasons why those engaged in business, professional men, and persons of leisure are so much more subject to kidney ailments than those engaged in active out-door pursuits.

Lack of Exercise.

Both beast and bird, in a state of nature, are exempt from disease except in rare cases. It is because the unappeasable instinct of searching for their necessary food impels them to ceaseless activities. Children, when left to themselves, eat a great deal and have excellent health, because they will be doing something all the time, until they become so tired that they fall asleep, and as soon as they wake they begin to run about again; thus their whole existence is spent in alternate eating and sleeping and exercise that is interesting and pleasurable. The health of childhood would be enjoyed by those of mature years if, like children, they would eat only when they are hungry, stop when they have done, take rest in sleep as soon as they are tired, and when not eating or resting would spend the time diligently in such muscular activities as would be interesting, agreeable, and profitable. Exercise without mental elasticity, without an enlivenment of the feelings and of the mind, is of comparatively little value.

Exercise is health-producing, because it works off and out of the system its waste dead and effete matters; these are all converted into liquid form, called by some "humors," which have exit from the body through the "pores" of the skin in the shape of perspiration.

Exercise improves the health, because every step a man takes tends to impart motion to the bowels. A proper amount of exercise keeps them acting once in every twenty-four hours.

Exercise is healthful, because the more we exercise the faster we breathe. If we breathe faster we take that much more air into the lungs; but it is the air we breathe which purifies the blood, and the more air we take in, the more perfectly is that process performed.

Observe the Requests of Nature.—No teacher should ever refuse a child permission to go out when asked, if he knows the request is an honost one. Even when he doubts the necessity of the case, he should let the child have the benefit of the doubt. Permanent injury to the organs of the child, resulting in the ruin of his health for life, may be the result, if nature's calls are postponed or disregarded. Nature is a faithful monitor, even as much so as conscience. But, just as conscience is weakened every time its warnings are neglected, and it thus becomes so enfeebled that at last its faithful warning voice is silenced; so the organs of the body lose the power to discharge their duties, whenever their requests are denied, and the result is pain, disease and suffering, often making life a burden. The large number of kidney diseases, now so common, originate from disobeying the requests of nature.

thoughts possess the mind. The energy is greater, the body is actually stronger, in the bright light of day, while the health is manifestly promoted, digestion hastened, and the color made to play on the cheek, when the rays of sunshine are allowed to sport freely among us. There is something in darkness soothing, depressive, quieting; while light, on the contrary, excites and arouses. It is common to see this socially illustrated—a company assembled in an apartment dimly lighted will be dull, somnolent and stupid; but let the room be brightly illuminated and the spirits rise, thought is enlivened, and conversation proceeds with increased animation.

Let There be Light.—Sunshine is an essential element of human life, health and happiness. Shall we do without it? Shall we close our parlors, that no ray of cheerful sunlight shall get in from January to December? Shall we keep our sleeping apartments darkened, during the day time, so that the damp vapors of night cannot be evaporated? Shall we try to hide ourselves from the sun's rays, so that our delicate, beautiful, sallow and sickly countenances remain white and ghostly, as though we came out of the sepulchre? When we walk out, shall we ward off every ray of a benignant Creator's smiling, cheerful sunlight, hy holding a parasol or umbrella above our heads? Shall our tiny fingers be gloved up for fear that they might be tinged with those beautiful colors with which the Almighty adorns his kingdom of nature? Some per-

sons love the domain of the sickly, the ghastly, the pale realms of shade and of death, but we confess to have an instinctive love of life, and cannot make up our mind to walk about as one coming just freshly from the grave, bound hand and foot, and our grave-clothes on. We believe that if the good Lord had intended us to live in the dark, He never would have said: "Let there be light." He would not have created sunshine, if he had intended us to grovel in darkness, or else would put a blind, a shutter, or a curtain before the sun in the heavens.

What shall we say to that parent who says: "Look at my little child, see how beautiful, how clear, how almost transparent the complexion is?" Alas! how sad. Do you expect to raise that child, and that he will be a stay to you in your declining years? It is impossible for you to succeed. With his impoverished blood and irritable brain and nervous system, he is illy prepared to resist the cause of the diseases of childhood. You have every reason to fear that sooner or later one of the eruptive fevers, bowel complaints, or inflammatory affections, to which children are liable, will stretch him upon his suffering and dying bed, and that you will follow his lifeless remains to a premature grave. Should he be so fortunate as to survive the dangers of childhood, he can become but a miserable effigy of a man, and a lifetime of wretchedness and suffering is before him. If you would save your child from all this, there is but one course for you to pursue. You must

care less for carpets, and his complexion and delicacy, than you do for his health and life, and manifest your love for him by turning him out of doors into the sunshine, and by never, when the sun is shining, allowing him to stay in a room where the air is not constantly purified and made alive by the solar rays.

Teacher, a word to you. Do you teach in a dark, dingy school-room? As you value your life and health and that of your pupils, have something done to your school-room. Tear down every blind; have every window opened, and invite God's own free sunlight to come in.

How to Avoid Malarial Fevers.

Malaria, Means Bad Air, in common English; Schlechte Luft, in German. It usually is generated in low places, along streams, especially where the beds of streams are exposed to the sun's rays. The cutting away of our forests, which formerly shaded the streams, and the streams becoming smaller, in consequence of the country being denuded of wood, is the fruitful cause of much of the malarial, intermittent fever, or ague, with which we are now afflicted. Places which formerly were exempt from the disease are now visited by it. It seems to become epidemic from year to year. It is a terrible disease. It completely uses up a fellow. Takes all the snap out of him. Unfits him for everything and predisposes him to all kinds of diseases, particularly typhoid fever. On the 9th inst. we buried a young girl, but twenty one years old, who, though strong and robust, capable of resisting disease, as far as it lies in human power to do so, in three short weeks, passed from health to malarial fever, typhoid fever and the grave, and that at Doylestown, Pa., a place claiming to be among the healthiest on the globe.

To Escape It.—Now it pays to know how to escape from the clutches of this destroying angel, and

if you will follow the advice which we shall here give you, you can feel comparatively safe from its ravages, and, at least have done your duty.

Malaria prevails only where there is heat and moisture.

There are three agencies which always will perfectly and safely antagonize all the ill effects of Miasm, to wit: 1st. A good warm meal; 2d. Heat: 3d. Cold. It is curious to note how each of these acts differently. Cold only paralyzes miasm, for, like the frozen adder, it comes to life to destroy as soon as it is warmed. Heat, continuously applied, sends the miasm to the clouds; hence its inocuousness in the heat of the day everywhere: while a hearty, warm breakfast or supper makes the system impervious to its effects, makes it invulnerable, repels its deadly onslaught. A pint of hot coffee, tea, milk, or hot water, with a thimbleful of cayenne pepper in it, will also, but a regular meal is better. Kindling a brisk fire in the sitting-room, to burn for the hour, including sunrise and sunset, will protect any family from malaria. These simple remedies cost nothing, require no doctor, no medicine, no constitution-destroying quinine, and will never fail as a preventive. The doctors may tell you that this is a humbug. Do not believe them, take the preventive rather than the cure.

Biliousness, the Precursor of Malaria, is indicated by a bad taste in the mouth in the morning, a poor appetite, and a feeling of general discomfort, often

accompanied by headache and cold feet. The best cure is to work moderately, take but two meals a day, and these of the simplest kind of food, and always a cup of strong coffee and some hot food, before leaving the house in the morning. Eat plentifully of raw tomatoes.

The Nose.

The Nose is for Breathing.—Man has lived 6000 years on this globe, and is just beginning to learn how to breathe, or the fact that the nose is for breathing. Children should be taught this and should have breathing exercises at school. We were asked by a teacher at Butler, how to cure a boy fourteen years old of "speaking through the nose", or rather speaking with the nostrils contracted or closed, and thus uttering unpleasant nasal sounds. We advised the teacher to have breathing exercises, and thus to teach this pupil, and all others, to breathe through the nose. To say nothing of the advantage of the pure tone, which breathing through the nose produces, every child should be taught to shut the mouth when breathing, for hygienic reasons. The Indians are much wiser than we in this respect. They tie a band around the heads of children when they put them to sleep, in order to keep the mouth closed and to accustom them

to breathe through the nose. Besides, this prevents snoring. Persons snore only when they sleep with the mouth open. Athletes, professional trainers, hunters, mountaineers, all physically strong and perfect men, habitually breathe through the nostrils. One may breathe mephitic gases, or the smoke of a burning building, for a short time through the nose, if the lips be kept tightly closed, when he would quickly suffocate if he attempted to breathe through the open mouth.

Sense of Smell a Secondary Use.—The function or sense of smell, which is commonly considered the chief end of a man's nose is really a very subsidiary part of its business. Through the nose the air is purified, tempered, and moistened, before it reaches the sensitive larynx and lungs. Foreign and irritating particles are arrested in their passage through the nasal cavities; the temperature of the air is raised to that of the body, while it is moistened by the secretions of the membrane which lines its labyrinths and the glands which it lodges.

The dust which loads the city's atmosphere—filth is an impalpable powder—finds ready access to the upper portion of the air-tubes and gullet through the mouth, but is almost entirely deposited on the moist mucous surfaces of the winding, shell-like nasal passages in proper breathing.

Nose Breathing Necessary to Health.—The usual effect of the first mouthful of cold air in a sharp winter atmosphere is to provoke a cough, and a prompt

closure of the lips to guard the sensitive structures of the larynx and vicinity, and there are few that have not awakened in the morning with a dry, harsh tongue, throat and palate, when from any cause, nasal respiration has been impeded during sleep, the secretion of the mouth being neither suitable nor sufficient to keep the surfaces moist under such circumstances. Catarrh and throat affections are much less common among those who keep the mouth shut and habitually breathe through the nostrils. This of itself, where the diseases are so prevalent, as a result of our climatic conditions, should lead to the general adoption of a practice which has many other and obvious advantages. We had the pleasure of listening to a very interesting lecture by Dr. C. Seiler, of the University of Pennsylvania, on nasal catarrh. Among other important things which we learned, was the necessity of cleaning the nose every morning. The doctor argued, that, during the day and night, dust and dirt settles in the nose, and that it is just as necessary to clean the nose in the morning, as the teeth. He recommended that a teaspoonful of salt be dissolved in a tumbler full of water, and this thrown up into the nose and again expelled. Water without the salt will be apt to injure the mucous membrane.

Home Medicines.

Don't Meddle with Medicines.—It is safe to say, that those people who oftenest prescribe medicines for themselves really know the least about them. It is he who is ignorant—generally so in all matters—who is constantly deluging himself with drugs. Generally the injury done does not follow immediately so that it may be traced directly from cause to effect; but sometimes it does, as in the following instance: In one of the poorer localities here a woman had the toothache, and a druggist told her to put into the cavity a piece of cotton wet with creosote, of which he gave her a small bottle. The effect was excellent, and the pain soon subsided. One of the woman's daughters shortly after that had the earache. Reasoning that if creosote was good for toothache, it surely ought to be good for earache, she dropped a little in the painful ear, and the victim barely escaped with her life, while, of course, on the affected side she was "stone deaf" ever afterward. Just such stupidity as that is constantly being exhibited by some one, and it is not by any means confined to the humblest classes.

About Bitters.—There is another curious condition of things. Very many drugs are dispensed in the form of tinctures, which are made from alcohol; that is

the base of almost all "bitters" and "tonics." There are very many people so rigid in their views they deem it a sin to drink even a glass of lager beer, and yet no small number of these same people always keep their favorite "bitters" in the house, which they take regularly, as they reason, to keep themselves well. Such people are steady tipplers, and if they made it a rule to drink whiskey or brandy as often as they take their "medicine" they would be exactly as temperate.

Tinctures are Dangerous.—There suggests itself another point of which non-professionals are almost always ignorant. Drugs are made not only into tinctures but also into what are known as fluid extracts. Now a dose of the former may be six or eight drops, while the latter made of the same drug, is only one drop. There is certainly a chance to make a grave mistake. Then, too, all medicines made with alcohol, as tinctures and fluid extracts, unless they are very carefully kept, become stronger on account of evaporation. A dose of laudanum today just obtained from the druggist, may be twenty drops for an adult, and yet a few months from now, if as many drops were taken poisoning would result. Doubtless thousands of children are every year sent out of the world by medicines, the same being given in overdoses. A mother has a cough, aud obtains a mixture of some friendly druggist, who directs that she take it in teaspoonful doses. She is soon well, and considers that the medicine "did the work." A little of it is left on hand, and when her baby is taken sick with a

cold, she, assuming that what was good for her must certainly benefit her child, calls the "cough drops" again into service. She is just as likely to give from one-third to one-half a teaspoonful as she is to give the correct dose, which may be, under no condition, more than two or three drops. The overdose kills it: but the chances are she does not recognize that fact, and is ready to do the same thing over again with her next baby.

Do not Trifle with the Life of the Child.— In the poorer neighborhoods are to be found any number of old women who "know more about doctoring than any doctor does." They base their pretentions on the fact of having had large families. Question one of them and it will very generally be found that they have lost their credentials; in other words most of their children have died. A physician before a sick child is often a good deal like a man on the sidewalk, before a house trying to tell, from the appearance of the outside, who is on the inside. He watches this door and that door, this window and that window, and listens to every sound. Every faculty has been sharpened by his training, his work is "second nature," and nothing escapes him. On the alert, he studies the patient, noting this and that symptom as it appears, and finally a complete picture of the disease is before him. But even then he is not ready to institute treatment: there is yet much to be considered ere he can do that. Often the peculiarities of the parents will influence him; he must know all about the food and its effects, bring out the error in the

mother's management, etc. In the treatment, as a rule, nursing will have the first place, and the giving of medicine will be of the least importance. Taking in every detail, not one of which can be neglected without endangering the child's life can any person with a grain of sense believe that the work of the physician can be safely assumed by one who has not had his training? Certainly no conscientious person, who holds life at the least value, will ever undertake it in any case.

To know what is the matter, what is needed, and what will answer the purpose are the important requisites, where there is sickness or ailment. Good common sense, careful observation and sound judgment are necessary. Persons who are not physicians, and yet possess these, are often more useful than physicians who are lacking in them.

Specifics.—A few agents have been employed from time immemorial, such as sulphur, in case of itch, and cutaneous disease.

Spirits "act on" the brain; fumes on the lungs; ipecac, on the stomach; rhubarb on the upper bowels; aloes on the lower; mercury on the liver; watermelons on the kidneys; strychnine on nerves; ergot on the womb.

Brandy makes a man as funny as a fool. Opium makes him as stupid as an ass. A hop infusion will put him to sleep. Tea keeps him wide awake. It is on these facts and principles that the whole science of medicine is founded.

Anodynes cause sleep, as opium, hops.

Astringents bind, close up, contract, as vinegar and persimmons.

Cathartics empty the bowels by purging, as salts and castor oil.

Diaphoretics cause perspiration, as hot herb tea.

Emetics empty the stomach, as tartar, ipecac, tobacco. etc.

Expectorants loosen the phlegm in the lungs.

Irritants draw the blood to the part away from the painful spot, and thus relieve, as a mustard plaster; thus giving the ailing part time to heal.

Liniments are irritants in a liquid form.

Lotions are washes to cleanse or soothe.

Refrigerants are to cool in fevers, as acids, lemonades, etc.

Tonics are intended to give strength, as bitters, made of vegetable remedies.

Poison Medicines.

Most Medicines are Poisons, and should therefore, if given, be administered by the most skilful physicians. Patent medicines *all contain poison* and should, therefore never be taken by any one unless he has a special knowledge of the human body, and the effects which poisons may have on it. Many people try medicines, and if one does not produce the desired effect, they take another and another. They give them to children to make them sleep, to stop their crying, to ease their pains, to cure them when they complain, to "sharpen" their appetites, to cure their colds. All this is done by thousands of ignorant parents; ignorant of the laws of health, and of the cause of disease. While they are doing this they are pouring poison down the throats of innocent little ones, and often hastening their death.

Be Careful of "Drops."—A young mother remarked to us recently that her babe had been quite restless at first, but now she always gave it "drops" and this made it rest. This mother, with thousands of others, is making the sad mistake of putting her child to rest by drugging it. The "drops" of which she speaks, contain opium, in one or the other or its various shapes, and thus a stupor is induced in the child, which

may dull its natural brightness for life. possibly making it a half idiot. Little children seldom cry unless they have pain. They get pain by being fed to excess. The normal, common sense method of relieving the pain, and stopping the crying, is not by drugging the child, and dulling or destroying its sensibility, but by feeding it less at a time and more frequently.

Most patent medicines are composed largely of poor alcohol, and yet temperance people often use these poisons in large quantities.

Physicians use but little medicine in their families, because they know that they are poisons. They use no patent medicines, because they are the worst poisons. The best physicians use but little medicine. The better the physician, the less medicine he uses, the more instruction he gives relative to the nature of the disease, and about foods, drinks, temperature, heat, cold, air, water, rest, sleep, posture and exercise.

We say to everybody, the less poison, the more good air, good food and good exercise, the better. Avoid medicine poisons.

Patent Medicines.

The quantity of patent medicines swallowed by the Americans is enormous. What a change since the days of our fathers. Then they had peppermint, golden-tincture, Bateman's drops, tincture of life, and the various herb teas. Now the names of the nostrums and cure-alls offered to the public are legion. Open the newspaper or even the religious paper and your eye is greeted with the advertisements of patent medicines.

Patent Medicines Not a Necessity.—Both art and nature are impressed into the service of advertising patent medicines. Scarcely a barn, stable, shed, bridge, rock, tree, telegraph post, or other object in the air, earth, or under the earth, that is not decorated (?) with inscriptions. Men, women and children are thus forced into the belief that those medicines are necessary for regaining and retaining health. The vender calls on them and, by his persuasive eloquence, gets them to buy and try. The street corner and the public square re-echoes with the yell of the agent, and he never fails to command an audience of willing, unsophisticated dupes. There is no town exempt therefrom. The very rocks by the road side are besmeared with these vile advertisements of these body-and-soul-destroying nostrums. It is a fearful delusion of the devil

that health can be bought. Preserve it while you have it, and, if lost or impaired, do not attempt to restore it with the medicine bottle. Nature's own recuperative and restoring powers must do it, if it is ever done. Let this solemn, eternal truth be impressed in every school room and family in the land.

Human Nature is Weak.—It is deemed so much easier to cure an ill than to avoid it. "To take something" is so common and so easy, particularly if it comes in sugar-coated pills, soothing sirups, perfumed pastilles and sweetened lozenges, that the millions vastly prefer it to exercising a little precaution or taking the ounce of prevention. That this is the case is proved by the fact that these medicines are sold in sufficient quantities, a thousand different kinds, to pay for all the advertising and enrich the manufacturer. Some of them have become millionaires, and who has paid for their humbugs? Poor, suffering, sick, drugged, dying humanity. What is the fact that should be impressed on the minds of the young especially, both in family and in school, and, for that matter, on the old, too?

That remedies are not capable of imparting vital power or activity. This is one of the first and all-important lessons in physiology.

That medicines are not food. That they contain none of the essential engredients of food. That they do not furnish food, nor a substitute for it.

That what makes a person *feel better* is no evidence of benefit to him. The judgment based on the report of the nerves of sensation is a product of delusion.

That a remedy develops the energies of the vital system. Exercise does this, healthful food, ditto, rest may do it, medicine, alcohol and stimulants never.

Every neigbborhood has examples of medicine-wrecks. These are the dyspeptics, the hypochondriacs, the miserables, the physically incapable of both sexes, who are ever taking medicine. These are your OBJECT LESSONS. Hold them up to the young, as crows and hawks and birds of prey in general, are nailed against trees when shot, as warnings to others. Flee for your lives. Patent medicines kill body, mind and soul.

Good Rules.—Work is good medicine.

Society says one thing, nature another; follow nature.

Sleep eight hours out of the twenty four, eat three meals a day, and walk on the sunny side of the way.

If a healthy baby is properly taken care of it ought in its early months of life to pass fully eighteen hours in sleep.

The most violent poisons are vegetable, and yet many people will fool with vegetable substances as if they were harmless. Beware of medicines marked "purely vegetable."

The physician of the future will be employed to prevent, more than to cure disease. He will call once a week and give the family advice how to preserve health.

These are all-important health lessons, which should be constantly impressed on the young. Activity and work are the only proper medicines.

Posture.

Erect Position Necessary to Health.—Many of the young ladies and gentlemen of the present day are round-shouldered, and consequently predisposed to consumption. It is impossible for a stooped person to enjoy good health. His breathing is imperfect, the lungs are not inflated, the organs can not perform their functions, and disease, suffering and premature decay and death are the result.

Parents, teachers, and those who have the supervision of the young can not be too careful to see thereto the children maintain an erect posture at all times, and if they have fallen into the pernicious habit of stooping, to take the most active measures to correct it.

The back bone, spinal column, is composed of twenty-four alternate layers is a soft gristle, resembling rubber. The weight of the body rests on these elastic cushions, when we walk, work or stand. The conse-

quence is that a person is fully half an inch shorter in stature in the evening, than he was in the morning.

Spinal Disease.—If persons fall into the habit of leaning to one side, sitting bowed forward, as children frequently do in school, the pressure on the elastic cushions will tend to make these cushions thinner, on the side towards which there is a leaning. The pressure and absorption will also become less on that side, and the cushion will become wedge-shaped. Sometimes the whole cushion will be absorbed. This is spinal disease.

The cure must be commenced before the bones meet, or the case is hopeless. To effect this there must be a straightening up, bending the other way. To make this effective a person must take plentiful out-door exercise, and while sitting or standing constantly straighten up. While sitting, reading, writing and sewing, it is almost impossible to attain the erect position, though teachers, parents and employers should constantly urge on the young to sit as erect as possible. But the out-door exercise, with erect posture is the best panacea. Walking with the head downward, or sitting thus also affect the health, by compressing the lungs. It diminishes the capacity of receiving an adequate quantity of pure air, the blood becomes more impure, until the entire mass becomes diseased.

The pernicious habit of sleeping with the head resting on high pillows should be discarded. The head should be almost on a level with the body, or only slightly raised. Sitting half upright in bed is very injurious to health. Give frequent exercises in breathing. The members of

the class should be required to stand firmly on the floor, throw the head and shoulders back and inhale till one hundred is counted, than exhale in the same way.

Sensible Rules.—The following rules should be observed by every one, and parents and teachers should impress them constantly on the young:

Walk with the chest thrown outward.

Walk with the chin raised above a horizontal line, as if looking at the top of a carriage.

Walk frequently with the hands on the back.

If an effort of the mind is made to throw the shoulders back, a feeling of tiredness and awkwardness is soon experienced, or it is forgotten. The use of braces to hold up the body is necessarily pernicious; for there can be no brace which does not press upon some part of the person more than is natural, hence cannot fail to impede injuriously the circulation of that part. But were there none of these objections, the brace would soon adapt itself to the bodily position, like a hat or shoe or new garment, and would cease to be a brace.

To Cure Stoop Shoulder.—There is one good way to cure it. Shoulder braces will not help. One needs not an artificial substitute, but some means to develop the muscles whose duty it is to hold the head and shoulders erect. I know of but one bull's-eye shot. It is to carry a weight on the head. A sheep-skin or other strong bag filled with twenty or thirty pounds of sand is a good weight. When engaged in your morning studies, either before or after breakfast, put the bag of sand on your

head, hold your head erect, draw your chin close to your neck, and walk slowly about the room, coming back, if you please, every minute or two to your book, or carrying the book as you walk. The muscles whose duty it is to hold the head and shoulders erect are hit, not with scattering shot, out with a rifle ball. The bones of the spine and the intervertebral substance will soon accommodate themselves to the new attitude. One year of daily practice with the bag, half an hour morning and evening, will give you a noble carriage, without interfering a moment with your studies.

It is a sad thing to see, as one passes along the street, so many young ladies walk stoop-shouldered, with crooked spines, thus digging for themselves premature graves, all of which is easily avoidable.

Walking Erectly.—Not only adds to manliness of appearance, but develops the chest and promotes the general health in a high degree, because the lungs being relieved of the pressure made by having the head downward and bending the chest in, admit the air freely and fully down to the very bottom of the lungs. To derive the highest benefit from walking, hold up the head, keep the mouth closed, and move briskly.

Pneumonia.

A Terrible Disease.—Pneumonia is a Greek word having the same derivation as pneumatics, and means breath. It is an inflammation of the lungs. It is a disease to which the feeble and strong are alike subject. It very frequently carries off the most rugged in four or five days.

Pneumonia is a terrible disease. It strikes young and old, the weekly and the robust alike, and is common to all seasons of the year and to all sections of the country. Its ravages are felt from Canada to the Gulf. Great and sudden changes of temperature, however, are most favorable to it.

Worse than Yellow Fever.—Yellow fever is a much dreaded disease, and yet pneumonia is more dangerous. Those who recover from yellow fever are stronger afterwards than they were before, while those who get over pneumonia are often only spared to live a life of suffering. Mrs. Bernd, a German lady, at Vidalin, Louisiana, who with her daughter entertained us, and made us feel at home in her house, though we were strangers in a strange land, told us that she had passed through yellow fever, and by careful nursing had brought her family through the scourge so that all were stronger after the recovery than before.

A few years later, however, her daughter, who was the picture of health, were carried off to the grave, after a few days suffering from pneumonia. Similar experiences have been made by thousands. Pneumonia is a most dangerous and treacherous disease, and yet it is avoidable.

School children, in the fall and spring seasons, are specially subject to this disease. They may contract it by becoming over-heated on the play-ground, and suddenly cooling off, by sitting down on the damp ground, by divesting themselves of extra clothing when warm, by sitting in a draught, and in a hundred different ways.

Parents and teachers cannot be too careful in watching children, yea, everybody should exercise the greatest care, that colds may not be contracted, for colds easily terminate in pneumonia, and pneumonia not uncommonly terminates in death, or if not fatally, it leaves results, such as pulmonary diseases, which remain incurable for life.

How to tell Pneumonia.—A clear understanding of this disease is denied the non-professional. It is even impossible for him, no matter how well-informed, to determine positively, from any knowledge which he may possess, when a case of pneumonia is before him. There are, however, some symptoms which it will be well to describe, for when they appear in children they should at least excite a suspicion that pneumonia exists.

The disease may begin abruptly or in a gradual

way, preceded and associated with bronchitis. As a rule, pneumonia follows bronchitis in children under three years of age. Among the earliest signs of the disease is the change in the respiration. The breathing is hurried and labored. The air does not appear to enter deeply into the lungs, and, as it is expelled a moaning sound is emitted. This expiratory moan is strong, but not conclusive evidence of pneumonia, as it is sometimes heard in painful affections of the stomach and abdomen.

Cough is also an early symptom. It is dry, hacking and painful; some have described it as a "short, stuffy cough." Crying, says one writer, during an attack of coughing, or for a brief time afterward, and attended with distortion of the features, indicates pneumonia.

That a child with that disease suffers from pain is evinced in the expression of the face, which is flushed and anxious. There so often appears a deep crimson spot on one or both cheeks of pneumonia patients, it is assumed by many physicians to be an important sign.

A significant symptom of the disease in question is the dilation and falling of the nostrils as the little one breathes.

There is a loss of appetite, thirst, and restlessness. If the patient is an infant, its nursing is seriously interfered with on account of the shortness of the breath, and although it makes repeated efforts, it is unable to satisfy its wants.

The blood vessels of the neck stand out prominently and throb preceptibly. In the earliest stage, headache is quite constant; older children complain of it, while those too young to speak present exidence that it exists. They often lie with eyes shut, "apparently a half conscious state, and are fretful when spoken to or aroused."

Fever is invariably present, and quite high, especially in the first stage. The tongue is moist, and covered with slight coating. The bowels are almost always constipated. The initial symptoms already described are quite sufficient to occasion a mother alarm when they appear in her child. Her duty is then clear; she should send for a physician without delay.

How Avoided.—Children and grown people should always take the following precautions. Teachers and parents should regard it their duty to impress them on the young: Avoid checking perspiration rapidly, or slowly, by remaining still until the body is chilled. Always have plenty of fresh cool air in your room. Shut your mouth when you pass from a cold to hot, or from a hot to a cold atmosphere. Asleep or awake, keep the mouth shut when breathing. Keep the temperature of your rooms, churches, and school rooms rather below than above sixty-five Fahrenheit. Keep the feet warm and dry,—if damp change stockings at once. Spend a few hours in the open air. Wear thick soled shoes. Wear plenty of underclothing, especially flannels next to the skin.

Never sleep with the head in the draft of an open window. Never sit in a draft. Always throw a shawl or an over-coat over the back when you feel cool. Never stand still out of-doors, especially at street corners, after having walked even a short distance. If compelled to face a bitter cold wind, throw a silk handkerchief over the face. Never take off a single article of clothing when overheated by exercise. Never sit for more than five minutes at a time with the back towards the fire or stove. Never ride in a vehicle after you have become warm by walking.

Avoidable Causes.—A person sits up at night, the fire goes down, he feels chilly, but being anxious to finish a letter, or some work, continues and is chilled through. He gets an attack of pneumonia from the effects of which he may never recover. He dies eventually of consumption, after protracted suffering.

A young lady remains at a ball till two in the morning. She is overheated from the dance, goes out into the cold air, perhaps rides home, has an attack of pneumonia, and never experiences a day in her life anymore that she feels well.

An audience is dismissed from a hot, crowded hall. People rush out into the cold, raw, damp air, with mouths wide open, and perhaps walk briskly against a cold wind. In less than a fortnight several of them are sick and have died of pneumonia.

Some one calls at a neighbor's house, and on leaving is accompanied to the door by the kind lady of the

house. She stands there talking, and forgets herself, till she feels thoroughly chilled. She goes back and dies of pneumonia within a week.

Persons protect the chest by means of scarfs and other articles of wear, but never think of throwing a shawl over their shoulders, to protect the lungs, that most delicate organ, fastened between the shoulders near the back. The consequence is that they feel a chilling sensation in the back, the lungs unprotected become inflamed, and pneumonia is the result.

Some families are keept in doors during cold weather. The children are never allowed to have a breath of cold air blow over them. They thus become feeble, easily take cold, have cold all the time, and when they once get out, have an attack of pneumonia. On the other hand persons who camp out at night, even the tramps who build a fire and sleep around it, seldom take cold.

Hence, be as much afraid of pneumonia, and take as great a precaution against it as you would against yellow fever.

The Pulse.

Study the Pulse.—The pulse of a healthy grown person beats 70 times in a minute; there may be good health down to sixty; but if the pulse always exceeds 70, there is disease; the machine is working too fast; is wearing itself out; there is fever or inflammation somewhere, and the body is feeding on itself, as in consumption, where the pulse is always quick, that is, over seventy, gradually increasing with decreasing chances of cure, until it reaches 110 or 120, when death comes before many days. When the pulse is all the time over 70 for months, and there is even a slight cough, the lungs are affected.

Every intelligent person owes it to himself to learn from his family physician how to ascertain the pulse in health; then, by comparing it with what it is when ailing, he may have some idea of the urgency of his own case, and it will be an important guide to the physician. Parents ought to know the healthy pulse of each child; as, now and then, a person is born with a peculiarly slow or fast pulse, and the very case in hand may be that peculiarity. An infant's pulse is 130; a child's of seven years about 80; from 20 to 60 years, it is 70 beats a minute, declining to sixty, at fourscore.

How the Pulse Feels.—There are pulses all over

the body, but where there is only skin and bone, and at the temples, it is more easily felt; the wrist is the most convenient point. The feebleness or strength of the beats is not material, being modified by the finger's pressure. Comparative rapidity is the great point; near death it is 140 and over. A healthy pulse imparts to the finger a feeling as of a woolen string; in fever, it feels harder, like a silk thread; if there is inflammation which is always dangerous, it beats fast, spiteful and hard, as if a fine wire was throbbing against the finger. When the pulse beats irregularly, as if it lost a beat, then hurried to make it up, there is something the matter with the heart. But, however unnatural you may think the pulse is, do not worry about it, take nothing, do nothing except by the advice of an intelligent physician.

Rheumatism.

Causes of Rheumatism.—The constant cool damp weather is productive of rheumatic affections of various kinds, in old and young. Care, great care must be exercised in keeping the body sufficiently warm and dry, to avoid exposure, and never to go from home without rubber over-shoes, and umbrellas, when the indications even are for continued fair weather, to say nothing of rainy damp days.

A garment wetted by perspiration or rain about a joint, and allowed to dry, when a person is in a state of rest, is the most common way of causing rheumatism. The very moment a garment is wetted, change it, or keep in motion sufficient to maintain a slight perspiration till the clothing is perfectly dried. Flannel worn next the skin, warmth and a light and cooling diet are the great preventives and remedies. Many a case of consumption has had its origin from sleeping in cold, camp beds. Many cases of serious visceral disorders have originated in this manner. Rheumatism quite commonly follows, and proves a lifelong source of suffering and danger, and itself an early cause of death. Summer as well as winter days are full of moisture, and at nights as the temperature falls, the beds become veritable death traps. From warm clothing and with bodies aglow with a vigorous circulation, or bathed with perspiration

from active exercise, the cold, clammy bed and its damp sheets enfold the form in deadly grip, and we wonder why our children pale and sicken, when we look after them perhaps in every other respect so carefully.

Be sure to take off all of the underclothing worn by the child during the day upon going to bed. The night flannel should be of lighter material than that in daily use. Underclothing should be spread out upon chairs or hung up for a good airing every night, and if possible, in some other than the bed-chamber.

There is nothing that so promptly cuts short congestion of the lungs, sore throat or rheumatism as hot water when applied promptly and thoroughly.

Rubbing as a Treatment for Rheumatism.— People who rub their arms or legs for rheumatism should remember that the secret of the benefit derived from massage is that the operator always rubs up — that is in the direction of the heart. The reason is found in the fact that the valves of the veins and capillaries all open towards the heart, and by rubbing in that direction the action of these vessels is assisted, the vessels themselves are enlarged, and circulation is more freely promoted. Rubbing down — that is, away from the heart — does harm, for it clogs the veins and capillaries by impeding the circulation without in the least assisting the action of the arteries, which lie too deep to be affected by external friction, even if it could do them any good.

Pains.

What Causes Pain?—Pain is a blessing. It is the great life preserver. It is nature's warning voice. Your summer indiscretions might have destroyed your life in frequent instances, had it not been for this silent monitor. Pain is the result of pressure on or against a nerve. Of this you can easily convince yourself, if you have a hollow tooth, in which the nerve is exposed, and any object is pressed on it. When any part of the body receives extra pressure, by the blood vessels being extended, pain is felt, because the nerves are pressed on by these blood vessels. This causes disquiet or pain. This is called "inflammation." If a person eats too much, or becomes constipated, or makes his blood impure, so that it becomes thickened, or clogged in its channels, the veins are distended and press on the nerves, which causes dull pain, headache, etc. Rheumatism is one of the most painful afflictions to which human flesh is heir. It is the result of the body, or certain parts of it, having been exposed or affected by injury, over-work, etc., and consequently causing an over pressure of blood or inflammation, a pressure on the nerves, a toothache or headache converted into a bodyache.

Distinguish Between Kinds.—It would be a great help to mothers, and would save not only much need-

less anxiety, but also many a doctor's bill and sometimes even a life, if the distinction between a slight and a serious ailment were more generally understood. Overcaution and not undercaution is apt to be the prevailing tendency. A child or young person complains of severe pain in the chest and the mother at once fancies it is pneumonia; or, if the trouble is in the bowels, peritonitis is the dreaded enemy, and so on. "Pain without fever," said a well-known physician, "may be very severe and may cause much suffering, but in acute attacks it is not dangerous. If you had this amount of pain that you complain of," he said to the patient who had hastily summoned him, "in any inflammatory disease, you would be in a raging fever; if you have no fever, you need never worry." Most serious illnesses are preceded by a chill. This is a symptom that should never be disregarded, and it is always safe to put a child to bed and stop his food. Warmth and dieting will be found to be the best remedy for any ordinary indisposition, while for the beginning of serious trouble it is often the only thing that can be done until the disease declares itself.

How Pain is Cured.—By removing the cause. If you have pain in the stomach, it is caused by an extra pressure there, most likely by eating too much. What is the remedy which nature suggests? Eat nothing and rest. In all cases where there is pain the alternative is to diminish the quantity of blood, either at the point of ailment or in the body in general. A

mustard-plaster applied near a painful spot, by withdrawing the blood to itself, gives relief, opening a vein will do the same, so will a purgative medicine, or a "good sweat," or rubbing a part of the body. The rubbing reddens the skin, that is it causes the blood to flow toward and circulate in that part of the body which is rubbed, and consequently, abstracts it from the pain spot, where there is too much blood.

How to Avert Pain.—It is always better to avert pain than to drive it away after it has been caused. The ounce of prevention is better than the pound of cure. If your shoe pinches and causes you pain, get a pair of larger ones, and lay the tighter ones aside till cooler weather comes on, when there will be less expansion of the blood vessels, your feet will be smaller, and then you can wear them again. If you have pain in the stomach and gripings of the bowels, eat less, and avoid stimulants. Use a lighter diet. Fruits, rice, vegetables should be eaten more, meats and fatty substances less. Pepper, salt, spices, and condiments and stimulants, in general, act like the rubbing of the body, they cause extra friction, and hence pressure of the blood vessels in certain parts of the body, resulting in inflammation of those parts, therefore produce thirst, pain, etc. They should be avoided in warm weather. The bowels should be kept regular in their daily action. One action a day is indispensable to bodily health, vigor and endurance, and the avoidance of pain and summer sickness. This action is promoted, when there is a

tendency to constipation, by stirring a table-spoonful of corn meal in a glass of water, and drinking it, on rising in the morning.

School Hygiene.

Why Children Die Young.—While it is known to sanitarians that nearly every child born into the world *can* be reared to years of manhood or womanhood, yet the fact is that in the nineteenth century, from one-fourth to one-fifth of all the children born die before reaching ten years of age. What a murder of innocents! And in a Christian country!

But why this state of things? Mainly on account of ignorance and indifference on the part of parents. These unfortunate little ones, who received the blessing of the Great Teacher, are born of parents who themselves, and their ancestors before them, have violated nearly every law which governs their physical existence. They come into homes where no welcome awaits them. They are improperly fed, improperly dressed, without proper attention as to sleep, fresh air or cleanliness. It is not alone the children of the poor and ignorant who suffer in these respects, but in a very large degree also

the children of the well-to-do, whose mothers, from improper and deficient education, as we believe, commit their helpless offspring to the tender mercies of ignorant nurses, while they, the mothers, are active in temperance, missionary, church, charitable, or society duties. Shame, shame, that this is true, and yet it is. As an illustration, I was told a few days ago of an educated woman, of a neighboring town, most active and efficient in temperance work, whose own boys are growing up in the streets while she devotes her time to others.

Schools Should Teach Hygiene.—But what has this to do with school hygiene? This. To call the attention of teachers to the great need of educating the children, and parents, too, to the need of knowledge on these subjects. Sanitary science is a matter of first importance. It is not a branch, for which in school, "we have no time," as a principal told me a few years ago. It is imperative. We owe it to every child to teach him the plain errors of living which bring disease and death.

But people are beginning to appreciate these things. But a few days ago a matron of culture remarked in my presence: "It is no longer fashionable to have delicate children about the home." The words show that the teachings of sanitarians are beginning to bear fruit.

When in home and school the known principles of sanitary science are intelligently applied, we may expect a great diminution of sickness, suffering and premature deaths, and a corresponding increase of longevity and

physical happiness. Contrary to the popular opinion, studious habits, even hard study, are not injurious to the general health. Rather, in well-regulated schools, the average health of the students will be found to be above that of those of the same age out of school. This is true of both young men and women. The statement applies to private schools where the *whole time* of the pupils is controlled, rather than to public day schools.

Irregular habits, irregular eating and drinking, loss of sleep, lack of physical exercise, overwork, excitement are the causes of failure of physical power in students as in other persons.

Pupils Need Good Food.—I once remarked that the young ladies of a female seminary made very little progress in their studies, when the answer quickly came, "what more could you expect, remembering what they have to eat?" I suspect this evil is a general one in homes and schools. Bread and coffee are not enough to start the day upon if much work is to be done.

School children do not have enough sleep as a rule. For children under twelve or thirteen years, ten hours out of each twenty-four should be spent in sleep, and all other students should have at least eight hours of sound sleep each night. This is most important.

School hours are for young children entirely too long. Not over three hours for children under thirteen, and five hours for all others.

One of the modern innovations most to be condemned is the abolition of recess. A prominent teacher

of a neighboring county in defending this movement remarked that "if factory children can do without a recess, certainly school children can do without it."

Examination and Study Hours.

At this time the foundations of nervous diseases, prostration of physical powers, injury to the eyesight, that will necessitate wearing glasses, and a general break down of the constitution are laid.

Long hours of study in close and crowded rooms are not only permitted but encouraged. Girls between the ages of twevle and sixteen should not be allowed to study for more than five hours a day. But the general rule is that the pupils reach school at eight in the morning, remain there till twelve, returning at one, and leaving at four. The evening is then spent in preparing the lessons for the next day. This goes on from Monday morning till Friday night. The tired girls stoop and crouch over their books, and seek relief in attitudes that would horrify the physiologist. The result is that shoulders grow out, spines incline to curve, chests contract instead of expanding, and backs grow round instead of flat and erect. Mothers are too much

inclined to neglect the physical training of their young daughters, naturally enough rating intellectual acquirements above bodily powers. They need reminding that a healthy body, such as is produced by gentle, easy modes of muscular training, is absolutely necessary to the full development of the mental powers. But a small minority of teachers comprehend the subtle relation between brain and muscle; and not until this is the case will education proceed as it ought to do, the physical and the mental marching hand-in-hand, each perhaps stopping a little now and then to wait for the other as good comrades should. The girls should acquire an easy carriage, erect and graceful, and be released *during class hours* at least, from the pressure of the corset. Girls should be taught to abandon this much meledicted article of attire, and they will very certainly emerge from its thraldom with fine physique and a grace of gait and contour, to which no mental or intellectual quality will have been sacrificed.

Avoid Night Study.—Parents should see to it that their girls are not driven too hard during their years of development into womanhood. They should take care that both boys and girls should not study too hard at certain diurnal periods, for instance immediately before bedtime. It is well known that hard study immediately before retiring to rest will do much towards injuring the health and preventing sleep. Great mental application, continued until too near the time of retiring, or beyond the usual hour, keeps the blood within the head at the time when it should leave it.

If examinations and graduation mean, as is so often the case, a sacrifice of health, strength, eyesight, the sweet rest of the night, and a general break down, the results of which are perceptible, if not throughout life, at least for years, then the sooner they are abandoned the better.

Normal School Health.—Normal school students, as a rule, confine themselves too closely to their studies and do not take sufficient exercise. The consequence is that some of the most promising students break down in health before they teach two years. They do not sleep enough. Some allow themselves only six hours sleep. Nobody can deprive himself of sleep with impunity. Young persons must have eight hours sleep. Normal students frequently eat too rapidly. They swallow their food without proper mastication, and even frequently without chewing it properly. They take up too many studies, and experience by the end of the term that they have gained a mere smattering of the branches. Let the rule be *non multa, sed multa.*

Plants in the Sleeping Room.

The prejudice prevails that plants in the sleeping room are injurious because they are constantly throwing off carbonic acid. Recent investigations have shown

that ill effects are altogether too slight to deserve consideration. If a room is properly ventilated, plants can do no harm, and even if it is not, the quantity of carbonic acid exhaled by them will not materially affect the purity of the air.

Hints on Hygiene for Children.

To Parents or Guardians.—See to it that the child goes to school in a proper condition. This means, first of all, *cleanliness* all over. A child not washed all over at least each week, with warm or cool water, is not fit for school. Some will need a bath oftener. Children need to wash the face and hands, and to comb and brush out the hair at night as well as morning. Let the mouth be rinsed with water, morning and evening, or the teeth be brushed, so as to have a pure breath.

Have clean, thin flannel for clothing, next to the skin, with such additional outside garments as may be necessary for warmth, and shoes and stockings that will protect the feet from dampness. A dry pair of socks and a clean handkerchief are not amiss in the satchel. Let no child start for school with damp clothing. When active, we can bear dampness awhile, but to sit in wet

clothing is always taking a risk. Tell the child, if damp or chilly, to let the teacher know it.

A good, plain unhurried breakfast is always important to the school child. The young are better off without coffee or tea; but some may need a warm drink for breakfast in cold weather, such as sweetened water, sugar and milk, and water or milk flavored with cocoa.

See that the child gets plenty of good sleep, in a well-aired room, and does not go to bed just from the book, so as to be tired and anxious about a lesson.

When the child is really unwell, do not send him to school just for the name of being punctual. The parent should judge and decide wisely, mindful that headache, pain or weariness in a child always requires rest. If your child is sick, or if there is sickness in the family have the judgment of your doctor as to the time of staying at home.

To the Child.—You must learn how to take care of your own health. Others may tell you, but experience and advice should early lead you to feel how important it is not to abuse the body. Help your parents and teachers to keep you clean and neat. Be clean in person, in thought, in word, in action. A child that has clean feet, clean hands, clean nails, clean ears, and combed hair, is generally clean and neat.

To get peevish or worried over a lesson is not wholesome. Get, if need be, a part of your lesson at home. The load is often too heavy, because we try to carry too much of it at once, or in too short a time.

In sitting, do not lean over too much or too constantly. While standing, stand erect. Neither fold the arms in front nor put them behind, but let them hang naturally and easily at the side. In studying, try to have enough light without a glare; if light or print troubles you, tell the teacher. If you are really unwell, let him know it; a headache that may not require you to go home may be a reason for change of position, or rest from study; only be upright, and do not pretend. In all things seek to take good care of your health, since your happiness and usefulness so much depend upon it.

To the Teacher.—Children must not hang damp or soiled over-clothing in a close, unaired room, against other damp or wet garments. Each child's clothing should be kept by itself.

Walls often need whitewashing, kalsomining or painting, and all wood-work should be frequently and thoroughly washed. Sweeping carefully under the desks and dusting are important. The condition of the rooms, the distribution of desks according to size of persons, light, variation in study and position, exercise, airing of rooms while empty, moderation of competition, assortment of work to the capacity of the child, and quickness to perceive the occasion for temporary variations and adjustments, are essential in the skilled oversight of the teacher; he must feel that he has this charge to keep.

School Room Hygiene.—The great importance of keeping the school room and the family sitting room sufficiently warm and dry, can not be dwelt upon too often

or too long. A thermometer should be suspended on the wall, not higher than three feet above the floor. A thermometer suspended near the ceiling may indicate a temperature of 68, while near the floor, owing to cold drafts and the rising of warm air, the temperature may be under 60. This is entirely too low to sit still by six hours, or even one. The temperature should not fall below 60 at the floor, which presupposes about 70 at our heads when standing. The school room and the family sitting room should have this temperature in the morning, and not a freezing ice-house temperature at 9 o'clock, and a torrid zone at 11, and then, perhaps, again a decrease toward evening. Colds will certainly be caught where such changes occur. A warm room presupposes a dry one, though not always. The room should be dry, and the children's clothing in damp, slushy weather particularly so. If they come to school with damp clothes, and wet feet, lose no moment in getting them dry. There should be a shed, or roof of some kind, under which the children can play in damp weather.

Light.—Get a piece of sensitized paper from a photographer. Hold it in the light, and see how soon it turns dark. The sunlight has a similar effect on the human body, wherever it is exposed. A dark brown color is much sought after by city people, and, hence, they resort to the country and the seashore, and are proud to return with browned faces and hands. Clerks employed in factories, and other persons, who spend most of the time in the house, soon turn, like potato vines in the

cellar, pale, emaciated and sickly. School children do the same, when the sunlight is but imperfectly admitted into the house. So do older people if they live in houses from which the sun's rays are excluded, by blinds, curtains and shutters. In other words if they remain long in dark rooms. Such a state of affairs should be avoided, and God's sunlight given free access to our apartments. What a wonderful influence, yea, healing power the sunlight has when allowed to fall on us and our children, as God designs that it should, and as he has made it to do, if we do not interpose obstacles and thus interfere with his plans. Open shutter and blinds and roll up the curtains, so that the light can fall on you and yours. It will pay you in the health which you receive thereby. We must, of course, avoid the other extreme, and not injure our eyesight by facing the sun, sitting with our faces turned toward the brilliant sunlight, as it pierces through the windows. School desks should always be placed so that the light falls on the backs of the pupils, and that they sit facing a blank wall.

Fresh Air.—Get a plentiful supply of this all important agent. Remember, you inhale enough air, if you are alone in an ordinary room, to contaminate whatever air there is in the room, in less than thirty minutes, if there is no provision made for a fresh supply. In a school room, where from 20 to 30 children are assembled, the air becomes surcharged with poisonous carbonic acid gas, in a few minutes. This can be proved by a simple *Experiment.* Place a lighted candle in a deep jar and

breathe into it. In a few moments the flame expires. Such air is unfit, dangerous to inhale. Throw doors and windows wide open occasionally, to admit a plentiful supply of fresh air. But especially have arrangements provided for ventilating your school room, sitting room, bed room, etc.

See that your school room is kept sweet and clean with plenty of fresh air. Keep the supply of oxygen abundant. It will help your pupils' brain work vastly. 2,000 cubic feet of fresh air are required every hour for each pupil for proper ventilation. See that they have it.

At every expiration about 200 cu. c. m. of air is expelled, over 4 per cent. of which is carbonic dioxide which is unfit to breathe. Do not allow your pupils to sit in the room for hours with no fresh air, breathing the foul exhalations from twenty lungs.

School Ventilation Very Poor.—Do we wonder that children grow restless or languid, complain of headaches and backaches and dullness when they are imprisoned in rooms whose atmospheric condition would not compare unfavorably with the Black Hole of Calcutta? If your school house is not ventilated with modern apparatus, and if it is, it is most likely good for nothing —devise a plan yourself; at all events give the matter your attention.

Dr. R. Harvey Reed, in a paper read at a society meeting in Denver recently, bore heavily upon the terrible fault of insufficient ventilation in schools. He said that from the moment they are born until they draw the

shroud around them for their last sleep the great army of people who live indoors are breathing impure air. They send their children to school where they breathe and rebreathe the air over and over again. Nay more, the putrid breath of the syphilitic and tuberculous child is inhaled by the child with rosy cheeks and a sound constitution from the beginning to the end of the school year. You would scorn the idea of having but one handkerchief, tooth brush or toothpick for each school room, and having your children all compelled to use them daily in common with the rest of the scholars, but you sit with folded hands and peaceful conscience while your children violate sanitary laws a thousand times worse by the inhalation of millions of cubic feet of foul and even putrid air from their diseased classmates or daily associates each school year.

How to remedy the matter is, however a most important question. The lowering or raising of windows is the most convenient and generally resorted to plan. The remedy, however, is often worse than the disease. Colds, resulting in serious diseases, and even in death, may be contracted in consequence. A draught of cold air, descending on the head or back is more injurious than even the foulest air.

Windows should never be lowered or raised so as to admit cold air on a person. If a current of air can be forced through a portion of a room, where it does not strike the inmates, or if a current can be made to pass around, from the top to the bottom of the window, by

lowering the upper and raising the lower sash, so that no one is struck by this current, a room may be partially ventilated in this way.

Opening doors and windows at recess, when no one is in the room, will answer the purpose of ventilation for a short time, and furnish at least a temporary supply of fresh air.

An Excellent Method.—The following method of ventilation has frequently been published, in books and school journals. It is a very excellent one.

Open a hole under the stove, and be certain that it communicates with pure air out of doors. A tight wooden box, about six inches square, can open directly under the stove, and half way to the eaves outside. The ends should be closed by sliding doors. At the opening of school both ends of this duct should be closed, but as the room becomes heated, and foul air accumulates, open doors enough to admit a sufficient quantity of fresh air. With this arrangement no window should be opened except in case of smoke or dust.

To Get Foul Air Out of the School Room.—Open a door in the ceiling, and be certain that it communicates with pure air. If the ceiling is directly under the roof, it will be sufficient to let the heated air escape into the space under the shingles, but if another room is above, care must be taken to be certain that the door communicates with out-doors. This is essential, or opening the door will be of no account. Several small openings in different parts of the ceiling, closed by sliding

doors, are better than large ones. How large these openings in the ceiling are made, depends upon the difference of temperature between in-doors and out-doors.

The foul air in a heated room is near the ceiling.

The foul air in a cold room is near the floor.

Hot air is not necessarily foul air.

Spring Health Notes.

At this season, when warm weather comes on, a person is apt to feel languid and drowsy after dinner. Do not let your laziness overpower you. Shake off the giant from your shoulders by keeping active. Don't eat much salad. It is one of the poppy plants and contains opium, which makes you stupid. If you want to sleep well at night, avoid sleeping a moment during daylight.

Don't Diminish the Clothing too Soon.—Serious and even fatal sickness is often caused by a change of clothing, — not, indeed, by putting on more or warmer clothing, but by diminishing it inconsiderately. It is very unsafe to lessen the amount of clothing sooner than the first of May, though some of our readers, and many other persons will be foolhardy enough again this year, as often before, to do so in April. It should be borne in

mind, and especially impressed on children, that such a thing as changing even from a heavier to a lighter quality of clothing, when the first pleasant days of spring come on, is very imprudent. At no season are overshoes so important as just at this. In Winter, when the ground is frozen, or even when the earth is covered with snow, rubbers are not as necessary, as in the slush and mud of April.

Wear Woolen Clothing.—When a change of clothing is made, it should be only, however, to lighter material, from yarn socks to worsted; from a thick, knitted flannel shirt to one of common woolen flannel. Woolen flannels next the skin should be the rule all the year round. Silk shirts next the skin, with their electric influences, are a humbug.

Woolens keep the natural heat about the body, because wool is a poor conductor of heat. It is, therefore, best to wear woolens next the skin in cool weather. Wool absorbs the moisture of perspiration very rapidly, and keeps the skin measurably dry. It is, therefore, best to wear woolens next the skin in warm weather. Hence, woolens should be worn all the year. In the night, especially when there is a debilitated condition of the system, a woolen flannel night dress should be worn, to prevent that sepulchral dampness and chilliness which annoys many persons.

The warm under-flannel is too often left off or is replaced by a cotton garment, and the overcoat or woolen shawl or wrap is thrown aside. Suddenly there comes a

rapid fall in the temperature and a biting east wind. The penalty is the infliction of recurrent disease in those who have been recovering from winter illness, and the prostration of many who throughout the winter have held on free of all disease, other than that sense of a deficient vital power which the long treat of winter cold inflicts even on the most robust.

Do not be a fool and take off your under-clothes when the first few warm Spring days come.

More injury results to health, in the Spring of the year, from this practice than from all others combined. In a changeable climate like ours it is not safe to discard flannels till June, nor to go away from home without an overcoat. Many of the Texas people wear flannels the whole year. The British soldiers in India are required to wear flannel all the year. Many of the colds and other diseases of Spring can be warded off by wearing flannels next the skin. Children should not be allowed to dispense with stockings, nor to go barefoot before the raw, damp weather of Spring is entirely over. It is a mistake to suppose that children can be hardened by baring their skin. They may be sickened and killed, but not made healthy in this way.

Changes Should be Made in the Morning.— If you change your clothing from thick to thinner, or by laying off the underclothes at this season, do it in the morning. If you make the change after dinner, the cool and dampness of the evening will soon overtake you, a chilliness will run over you, you have taken cold, and

it will settle in your eyes, cause your nose to run, create a tickling in the throat, and produce pleurisy, pneumonia, bronchitis, or diarrhea which may cause your death in a few days.

Teachers and parents can not place too much stress upon the necessity of children wearing their heavier flannels and clothes, until constant warm weather has set in, even then not to be too hasty in making a change, from heavier to lighter.

Exercise in the Spring.—That is the weather that causes us to neglect out-door exercise. But it should not. Promptly at three o'clock the notary goes to the bank, through sleet and storm, and howling winds, and the thermometer 20 below zero, and writes "protested" on all notes, which have not been met. The weather is no excuse to him, nor to the bank; even death is no apology for the failure to meet a bank engagement. Business is business, rain or shine.

Exercise is highly necessary, and, yet in the way it is frequently taken is the sheerest nonsense. Students, clerks, persons of sedentary habits and employments know that exersise is essential to their health. Convinced of this and feeling dullness and lassitude, induced in the system by the sudden warm weather of spring, the thermometer up in the nineties, they go about exercising with a spasmodic desperation, as if they expected to take enough in an hour to last them a week or a month. They rush out with a rake, axe, spade, hoe, or some other article, as if they were going to take everything

by storm. In an hour or two their strength is exhausted, they feel as "*weak as a cat*," as "*limber as a dish towel.*" The whole body is "in a stew," the clothes soaked with perspiration, they are weary, worn out, overheated, and make for the house. Hat, coat or shawl are flung aside, down they go on the sofa to cool, off. They fall asleep, or take an early supper and go to bed. They wake up haggard, sickish, "stiff as an old horse," sore in the joint, limb and muscle. They feel more dead than alive for days; exercise does not agree with them, and no wonder. All this, because they did not use any common sense in what they did. Nonsense.

Exercise must be Moderate and of short duration at first, increasing from day to day. The moment you stop exercising put on extra garments, sit down by a fire and wait fifteen minutes, before you take off your hat or extra garments, then wash your face and hands in tepid water, eat a light supper, and retire to bed at the usual hour. You will enjoy a sound sleep, have a keen appetite in the morning, never felt better in your life, your common sense exercise has given you a freshness and vigor that is surprising.

If you take a walk for exercise, do not "rush like a fool" as if you were running for a wager, your thoughts all the time on your studies and employments. Lay aside and forget all these, take a few pleasant companions with you, have a rollicking time, jump Jim Crow, sing, "cut up all kinds of monkey shines," and you will be surprised at the results.

Never, when in perspiration, permit the clothing to dry on you. If you are caught in a shower and drenched do not permit the clothing to dry on you. The process of drying wet or damp clothing requires so much heat from the body, that deprived of this heat, it will cool down below the proper temperature. You will be chilled, take a cold, become a sufferer, a consumptive, and may die in consequence. Always keep in active motion, exercise vigorously till your clothes are perfectly dry, or hurry home and change your wet clothes at once.

Spring Diet.—Banish meat and grease from your breakfast and supper tables. At dinner eat lean meat only, if any. Use eggs, celery, spinach, hominy, and stewed fruit, something that contains acid. Canned goods are very cheap and very wholesome, especially tomatoes. Keep the body clean. Spend as much time as possible out of doors snuffing in spring air. Have a good fire to come and sit by, with all your garments on, for eight or ten minutes after all forms of exercise, otherwise your exercise will do you more harm than good.

Surroundings of Buildings and Premises.—Warmth develops and sets free noxious gases from the surface of the earth. Poisonous effluvia are set free, in the vicinity of buildings and from damp cellars, which form the fruitful source of dire and deadly diseases. Scarlet fever, diphtheria, malarial fevers, smallpox and other maladies are bred in this way. Cold weather may

whitewash miasm, but does not destroy it. As the snow melts and ice and frost come out of the ground, miasm is warmed into life. The refuse matter that has been thrown about buildings, greasy water poured out, decaying animal and vegetable matter, lying about the house or filling the cellar, in the shape of half-rotten potatoes, apples, turnips and whatever of this sort has been stored away for winter use, now begin to emit an unpleasant odor, warning the occupants of the house of danger. More frequently, however, the poison is so attenuated that it produces no perceptible odor, and is thus but the source of greater mischief. Imperceptibly but surely the dangerous and deadly work goes on, and many a precious life is offered as a sacrifice, while others, amid great suffering, are brought to death's door, and only escape from death to endure that which is perhaps worse than death, a life of suffering and misery, wrecked physically and mentally.

Should be Cleaned from Cellar to Attic.—How important and necessary that at this season, buildings should be cleaned from cellar to attic, that the surroundings of houses, school-houses and out-buildings should be made and kept scrupulously clean and sweet! The cellars should be emptied of all decaying substances, washed and fumigated. All refuse matter should be removed from yards and the immediate neighborhood of the buildings. Sinks and privies should be cleaned. Chloride of lime should be scattered several times a week around the house and in the cellar, as long as

damp weather continues. One pound of copperas dissolved in two gallons of water should be kept at hand, and the liquid poured by the tin-cup full, every few days into water closets and sinks. Thus, will poisonous gases be neutralized and set free, and prevented from breeding diseases and death.

Teacher, parent, everybody, as you value your and your children's life and health, attend to this matter. It may require a little attention and labor, but it will pay you, this wet damp spring, a hundred-fold, if you do so.

A Strange Fever.

Spring Fever and Common Sense.—It is neither typhoid nor bilious fever nor yet the grip. It is the fever that attacks the boy, and causes him to skip school, or shirk work. Sometimes older people are affected by it also. It is the fever that inclines people to throw aside underwear and heavier clothing, and, after some exertion, to sit down on the ground and "catch cold."

The only cure for it is strong will power, determination to stick to school and work, and feel the better afterwards for having done our duty. Keep on wearing your flannels, or, if you must do so, change for lighter ones, but do not allow yourself to become fool enough to throw aside all underwear, and then, in a few days, when a cooler wave strikes us to be caught by a heavy cold.

Nellie Burns makes the following sensible remarks, on another kind of Spring Fever, in the *Plowman.* It contains much good common sense:

Another kind of Spring Fever.—When a housekeeper finds herself so overburdened with hard work, her first step would be to subdue her energy. Sometimes one will do very imprudent things at such a time through an excess of energy and ambition. For instance, a housekeeper fired with enthusiasm over her house-cleaning, will commence her work on a most

elaborate scale. The house is torn up all through. Every room is thrown into a disagreeable confusion, and in order to get the house restored to a living condition as soon as possible, she is compelled to work far beyond her strength. By the time she gets through her strength is gone, her patience is gone, her good humor is gone, her nerves are unstrung ; and a wife and mother in such a condition is not one of nature's most attractive objects, you know.

It is a much wiser plan for the housekeeper to moderate her ambition to accord with her physical powers, even though she is much longer in accomplishing her task. In house-cleaning it is a good method to clean only one room at a time. The house-keeper should then rest for a day or two, engaging herself in light work only, then another room can be undertaken. In this way she is not overworked, the home is not thrown in disorder, the husband and children are spared the painful sight and sound of an over-tired, nervous, irritable wife and mother.

Sleep.

Sleep the Best Medicine.—"Nature's sweet restorer, balmy sleep." "If he sleepeth he doeth well." Numerous passages like these can be quoted, both from inspired and uninspired writings, on the importance of good, sound sleep.

Eight hours of healthful sleep, each night, are necessary for all ordinary mortals. A few exceptional cases, such as that of Alexander Von Humboldt, may be quoted, where individuals slept only four hours, and lived to the age of ninety. Hundreds of examples of men, great and useful as Humboldt, can be adduced, who tried to cheat nature out of its required rest, reducing their hours for sleep to the minimum, and, thereby, unquestionably shortened their lives by many years. Sleep is the best medicine, the surest restorative, worth more than all the nostrums, specifics, and curatives, allopathic and homeopathic.

Early Rising is positively injurious to health, unless it is preceded by early retiring. Retire at nine and rise at five, or retire at ten and rise at six. This gives nature enough for sleep, provided not more than half an hour is lost in falling asleep, otherwise make the time for rising half an hour later.

Let us not be misunderstood, we do not find fault with early rising. It is heartily recommended, especially

at the season, when the sun rises before five. O, what a grand spectacle to go out into the great temple of nature, and hear the concert of the birds, as they warble their sweet notes, in praise of the great Creator! But early rising must be preceded by early retiring, or it is a crime against the body.

Never rise immediately on wakening. It is too severe a strain on the system. Never force or drag a child out of bed, the moment he is awakened. Never rouse him out of a sound sleep, the nervous system may be wrecked for life thereby.

Always ease your nerves by pleasant reading or conversation before retiring, so that you may fall asleep as soon as you reach the bed. Don't sleep under heavy cover. It will interfere with the circulation of your blood, and cause you unpleasant dreams. Two comfortables, or a comfortable and a blanket are entirely sufficient. If not warm enough under these place a few newspapers pasted together at the edges between them. Always have plenty of fresh air in your bed room. Even in the coldest weather the sash of a window may be lowered a few inches, to admit fresh air. The temperature of the bed room should not be above 65 degrees.

No Sleep Brings Death in nineteen days. Crazy people can not sleep. A thin yankee, so keen for money making, that his eye penetrates you, goes to bed at midnight, and is ready to drive a sharp bargain, by five in the morning. He will be dried up, shriveled like a mummy, the skin clinging to his bones, by the time he is

forty. He evaporates before he is aware of it. A fat, lazy, beer drinking Dutchman, who never was fairly awake yet, since his birth, and is as brown as a ham, smoking his long-stemmed tobacco pipe, lives to see the third and the fourth generation.

One of the very best men of this century, while at college, retired at midnight and arose at six. He should have had at least eight hours sound sleep, in every twenty-four. When he should have been in his best days, he was misanthropic, crabbed, spleenic, morose, silly, churlish and sinfully despondent. He said so himself. He did not reach threescore years.

Insufficient sleep, every physician will tell you, lays the foundation to premature death. Every one knows what disagreeable feelings a single sleepless night will produce.

The Young Man in the plenitude of his youthful power is apt to disregard the necessity for the rest that nature demands. Released perhaps but recently from the supervision of prudent parents, he glories in disdaining the oft-repeated precept of "early to bed," declares that time was made for slaves, and that he "wont go home till morning." Such young men make a declaration of independence, but a sorry show of wisdom. However robust of constitution, the young man who abridges the hours of rest that nature demands will find that he cannot trespass upon her laws with impunity; that he has encouraged a habit of sleeplessness which he cannot throw of as middle life approaches; that the natural growth and

nutrition of the body is interfered with; and that neither the pleasure nor the work of the day is entered into with customary zest and energy.

The Man Who Puts in 20 Hours.—The business man, the literary, or the professional man in the pursuit of fame or fortune, endowed with good health and spurred on by ambition, is jealous of time not spent in effecting his special aim, and neglects to give to sleep and restoration their proper dues. For some time, perhaps, he boastfully congratulates himself on his ability to disdain nature's laws with impunity, but his delusion is short-lived; such a man, soon finds that his capacity for work is limited, his thoughts are not so ready at hand, his perceptions are blurred, his judgment less shrewd; and most fortunate is he if, when he finds he is in desperate need of sleep, he can successfully woo her.

Take Plenty of Nature's Sweet Restorer.—There are many persons in the world to-day who are unavailingly taking medicine for that relief which they fail to secure, *when all they want is more sleep.* We were recently consulted about a bright and active young business man who, after a full day of business, would spend the evening until midnight in temperate social pleasures, then two hours would be passed with the *latest* new book, none of which ever missed, while he is always up and dressed by 7 a. m. Gradually he is growing thin and thinner, and, while not really sick, it is noted by friends that his appetite and relish for food are gradually growing less, day by day. This young man is on the "*Con-*

sumption Turnpike," and no medicine will halt his course; what he wants, and what all like him require, is *more sleep*. We can take it, as a rule, that anyone who habitually sits up until after midnight, getting up early in the morning, is *killing* himself; we mean what we say. Take plenty of sleep.

One of the greatest teachers of the land advised his students, always to carry a book in the pocket, and to take it out and read it, while waiting for an appointment or for sitting down to a dinner. He believed in his theory, put it in practice, died early,—and demented. The brain must have rest.

Words of Our Savior.—Our Lord and Savior said of Lazarus, "if he sleepeth he doeth well." There is no better medicine for a sick person than sleep, and to a well person sleep is the greatest preventive of sickness. Students, women and nervous persons need all the sleep they can possibly get; so do the melancholy and those who are in trouble. If those who go to church to sleep during services, would take more sleep of a Sunday morning, or, better still, retire earlier on Saturday night, they would be able to keep wide awake under the sermon.

Children and Sleep.—Require your children to be in bed by the time the clock strikes nine, summer and winter, except on Friday, Saturday, and Sunday nights, and occasionally at other times, in case of parties, weddings, and the like, for amusements and diversions are essential to the well-being of children; besides, it is not well to bring them up to inflexible rules, as if they were

machines, or to bring them under the tyranny of Medo-Persian laws, which admit of no repeal or change. This early retiring will do much toward preventing the early ruin of the eyes, by artificial light, and will also secure that liberally abundant sleep and rest to the brain, essential to bodily health and mental integrity. It is an undeniable and often-observed fact, that a failure to get abundant sleep lays many a promising child in an early grave, by inflammation of the brain. Too little exercise and too continuous study do the same thing; and when lack of sleep, lack of exercise, lack of out-door, are combined with insufferable drillings at school, and impossible lessons at homc, we can not wonder at the multitude of deaths of children from convulsions, nervous and brain diseases, from debility and wasting away. Let it be remembered that the more sleep a child can get during the night-time, the more quickly and readily and easily will all the studies be comprehended; and to this end, if the child is put to bed at a regular, early hour, the rule should be imperative that it should never be waked up in the morning. Nature will always do that with unerring certainty, just as soon as sufficient sleep has been had to repair the wastes of the preceding day, and provide a stock of strength to be drawn upon for the day to come. This is a beautiful law of our nature, and ought not to be contravened, for it can never be interfered with, with impunity, especially as to the young.

Children should not be permitted to cover the head with bedclothes; such a habit is harmful and results in

unrefreshing sleep, since they are thus deprived of pure air, and rebreathe that already laden with the carbonic acid of their own exhalations. The child from earliest infancy should sleep alone. Nothing is more subversive of good habits in sleeping and nursing than for the infant to occupy the same bed with the mother; the custom so often followed invariably results in restless, unrefreshing nights to both. The child is easily influenced by habit, and the judicious mother, with a slight hardening of her own heart for a few nights, can readily teach her little one to expect to be put in the crib and to go to sleep without such unnecessary aid as rocking or singing. Much harm has been done by giving to wakeful infants laudanum or morphine under the specious name of "soothing syrups." A well child is not fretful at night, and if sick it needs other treatment.

Children Should Not Sleep With Older Persons. —A habit which is considerably prevalent in almost every family of allowing children to sleep with older persons, has ruined the nervous vivacity and physical energy of many a promising child. Every parent who loves his child, and wishes to preserve to him a sound nervous system, with which to buffet successfully the cares, sorrows, and labors of life, must see to it that his nervous vitality is not absorbed by some diseased or aged relative.

Children, compared with adults, are electrically in a positive condition. The rapid changes which are going on in their little bodies, abundantly generate and

as extensively work up vital nervo-electric fluids. But when, by contact for long nights with elder and negative persons, the vitalizing electricity of their tender organizations is absorbed, they soon pine, grow pale, languid, and dull, while their bed companions feel a corresponding invigoration.

Examples.—It was sought in the olden time to invigorate King David, the psalmist, by causing a young and vigorous and healthy person to sleep with him. Although it failed of the desired effect, it proved that there was a popular impression that healthy influences were absorbed by one party. Be that as it may, it is undeniable that healthy influences are lost, and to a fatal extent sometimes.

A woman was prostrated with incurable consumption. Her infant occupied the same bed with her almost constantly day and night. The mother lingered for months on the verge of the grave—her demise being hourly expected. Still she lingered on disproving the predictions of her medical attendants. The child, meanwhile, pined without any apparent disease. Its once fat little cheeks fell away with singular rapidity till every bone it its face was visible. Finally it had imparted to the mother its last spark of vitality, and simultaneously both died.

Sleeping Rooms Must be Ventilated.—Perhaps the case is that of a young man or woman. An eight by ten bed room, with every door, and window, and avenue for the access of fresh air closed, is the sleeping

room. Sleep to this individual is not "kind nature's sweet restorer." The night is miserably spent in tossing from side to side awaking from unpleasant dreams, with headache and nausea every hour of the night, and yet with too much of a sleepy sensation to get up even in the morning, when the sun is already in the heavens.

The parents call "Hallo! John, get up! Sallie, get the breakfast! These are answered by a drawling, drowsy, "yes! yes! I'm coming," and then a turn in the bed, sleep again overtakes the person, and soon he is gone to the land of Nod. Again in a few more minutes the call is repeated, "Why don't you get up?" and again answered the same as before. At last, after a desperate effort he rises but oh! how he feels; he never felt more sleepy, the bed never felt better, and he less for rising. Why is this? After six or eight hours sleep, and with the morning sun shining in at the bed room window—everything propitious for rising, why, oh! why this worst of all feelings, and no refreshing sleep enjoyed? This sensation is experienced by thousands. What is it? It is death that has a hold of the individual. Nothing more certain. He is half dead already, almost asphyxiated by that poisonous substance carbonic acid gas. If a person experienced this sensation from an overdose of laudanum, or from going down into an old well, how every one would hurry to have something done for his restoration! But here is an instance of just as certain death, though the process may be somewhat slower, and yet it is none the less sure

of producing the same terrible consequences, and yet no one takes notice of it. Yes, death is even hugged and invited by the unhappy victim.

About one pint of air is inhaled at a breath. A person breathes about 18 times a minute during sleep, or two and a quarter hogsheads in an hour, or 18 hogsheads in a night. Every particle of air is used up in a room where there is no ventilation, in eight hours, and the air becomes so vitiated, that it is no longer fit for breathing in an hour or two. Hence the great importance of ventilation if refreshing sleep is to be enjoyed.

The bed chamber should be on the second or third floor, and its windows should face the east or south, so as to have the drying and purifying influences of sunlight. There should be no curtains to the bed or windows, nor garments hanging on the wall.

Cautions.—Have no heavy covering on the body, but cover the feet and lower extremities abundantly, so that the blood is withdrawn from the head and dreaming prevented.

Never go to bed with cold or damp feet. Retire at a regular hour, not later than ten, and rise as soon as you wake in the morning.

Franklin's remedy for restlessness at night was to get up, give the bedding an airing, and with the hand to give the whole body a good rubbing.

Restless nights, as to persons in apparent good health, arise chiefly from, first an overloaded stomach; second, from worldly care; third, from want of muscu-

lar activities proportioned to the needs of the system. It is better to eat something before retiring, than to go to bed on an empty stomach. But care must be taken not to overload the stomach, if sound rest is expected.

Worldly care. For those who cannot sleep from the unsatisfactory condition of their affairs; who feel as if they were going behindhand; or that they are about to encounter great losses, whether from their own remissness, the perfidy of friends, or unavoidable circumstances, we have a deep and sincere sympathy. To such we say, live hopefully for better days ahead, and meanwhile strive diligently, persistently, and with a brave heart to that end.

But the more common cause of restless nights is, that exercise has not been taken to make the body tired enough to demand sleep. Few will fail to sleep soundly if the whole of daylight, or as much thereof as will produce moderate fatigue, is spent in steady work in the open air, or on horseback, or on foot. Many spoil all their sleep by attempting to force more on nature than she requires. Few persons will fail to sleep soundly, while they do sleep, if they avoid sleeping in the daytime, will go to bed at a regular hour, and heroically resolve to get up the moment they wake, whether it is at two, four, or six o'clock in the morning.

Methods of Inducing Sleep.—Nearly all the methods for inducing sleep are such as tend to withdraw blood from the brain to the skin and abdominal organs. A hot foot-bath, for instance, is one of the best of the

simple sedatives; a light meal on retiring, or a cracker eaten in the early morning hours when sleep has fled and is wooed in vain, often transfers the seat of activity from the brain to the stomach and brings the former organ into a state conducive to rest. In most cases, however, late suppers should be avoided. During sleep all the functions of the body are in abeyance, the respiration is slower, the heart beats less rapidly, and digestion is delayed; food therefore, taken just previous to sleep is apt to be undigested, fermentation results, noxious principles are absorbed, and an unfreshing, disturbed sleep during the night and dulled faculties in the morning are the result. Light sleepers will generally find a position on the right side the most comfortable and less provocative of unpleasant dreams.

Do Not Use Drugs.—Nervous irritability from overwork of the brain is common cause for sleeplessness. The student who robs himself of sleep to gain the prize of scholarship; the professional man whose ambition spurs him on to the ignore the rest which nature demands; the business man who, in the pursuit of wealth, pays little heed to the plain indications of nature, toss restlessly from side to side, and weary hours drag by before they can cure the approach of tired nature's sweet restorer. In these cases there is the greatest temptation to resort to drugs to compel the rest so vainly sought, to bury care in the oblivion induced by the use of powerful narcotics, to seek solace in the sleep which opium or chloral may bring. Once allured, again

and again is the hazardous expedient resorted to, until soon the unfortunate subject is under the sway of a despot whose rule is ruin. Such men should heed at once the ominous warning so plainly given, and instead of resorting to drugs, the effects of which are but temporary and baneful, should realize that a radical change of life is imperiously demanded as the only alternative to a nervous bankruptcy, from which no future care, all too late, can extricate them. A long vacation in the country, or by the sea is needed. A protracted sea voyage in a sailing vessel is the most efficient means of securing absolute rest in such cases, and in the time so spent, which is apt in advance to be looked upon as wasted, a new life springs up.

Do not sleep on the back, it produces night mare. No one who sleeps on the side ever gets nightmare. Lying on the right side favors the passage of the food from the stomach. If you wake up with a hacking cough, immediately cover your entire body except the head.

Always induce an action of the bowels in the morning, so that you are not disturbed in your sleep thereby. If you find that the ordinary means of securing a good, healthful sleep will not avail, consult an educated, honorable physician.

Our Beds.

Must be Renovated Often.—We spend nearly one third of our life in the bed. This being the case it is vitally important that we have the right kind of beds, and also that they be kept properly. To say nothing of the old-fashioned spare bed, which has probably killed as many persons, as typhoid fever or small pox, the modern bed often, also, has its dangers.

Of the seven pounds which a man eats and drinks in a day, it is thought that not less than two pounds leave his body through the skin. And of these two pounds a considerable percentage escapes during the night while he is in bed. The larger part of this is water, but in addition there is much effete and poisonous matter. This being in great part gaseous in form, permeates every part of the bed. Thus, *all parts of the bed, mattress, blankets, as well as sheets,* soon become foul and need purification. The mattress needs this renovation quite as much as the sheets. To allow the sheets to be used without washing or changing, three or six months, would be regarded as bad house-keeping; but if a thin sheet can absorb enough of the poisonous excretions of the body to make it unfit for use in a few days, a thick mattress, which can absorb and retain a thousand times as much of these

poisonous excretions, needs to be purified as often certainly as once in three months.

A sheet can be washed. A mattress cannot be renovated in this way. Indeed, there is no other way of cleansing a mattress but by steaming it, or picking it to pieces, and thus, in fragments, exposing it to the direct rays of the sun. As these processes are scarcely practicable with any of the ordinary mattresses, the good old-fashioned straw bed, which can every three months, be changed for fresh straw and the tick washed, is the sweetest and healthiest of beds.

If, in the winter season, the porousness or the straw bed makes it a little uncomfortable, spread over it a comforter, or two woollen blankets, which should be washed as often as every two weeks. With this arrangement, if you wash all the bed covering as often as once in two or three weeks, you will have a pleasant, healthy bed.

Now if you leave the bed to air with open windows during the day, and not make it up for the night before evening, you will have added greatly to the sweetness of your rest, and in consequence, to the tone of your health.

Bed Covering.—In sleep we require an amount of covering that during the day would be burdensome, since in that state, there being no voluntary muscular action, and the functions of respiration and digestion being sluggish, there is less combustion of tissue and consequently less heat. To invite sleep the body should

be equably warm. The brain during rest is supplied with less blood than in the hours of activity; the effect of cold on the body and extremities is to contract the blood vessels of these parts, and to promote a fullness of those of the head, thus disturbing sleep and causing dreams.

Special to Parents.—If you are a father or mother, never send your child to bed crying, or angered or under punishment, without giving him a kiss. Remember it may be the last night on earth, or a burning fever, diphtheria or croup may deprive him of reason, and you will never again be able to make amends for your cruelty and devilishness, or to ask his forgiveness.

Be persuaded to make a habitual and systematic arrangement by which each child shall retire to its little bed with a feeling of affectionate lovingness toward you; that no harsh word, or look, or inconsiderate act of yours shall ruffle its little heart, and cause it to turn its face to the wall against you. Your indifferent, stereotyped, matter-of-course kiss is a cruel hypocrisy. The little creatures perceive it by instinct, and they lie down with an undefined unsatisfaction. If you do not feel a kiss, do not commit the atrocity of a mere form, but go and pray God to give you a new heart.

Sudden Deaths.

Sudden Deaths Very Common.—Of late years the number of sudden deaths has increased, at a fearful rate. This is particularly the case among men who occupy prominent positions. There is no doubt, that in most cases they are caused by the excitement, rush, strain and high pressure system of the age. We live too fast. We do everything in a hurry. We are overworking ourselves. We live in constant excitement. We put off everything to the last moment, and then exert our powers beyond all measure to accomplish our work. We rush to the train, or run up stairs, or get excited, so that the blood rushes to the brain; we take so little time to eat our meals, that we swallow our food only half masticated, or which is worse, force our food into our excited stomachs, or drink ice cold water in large draughts, or are guilty of numerous other indiscretions. We do this, not only once, for that would not be so dangerous, but we keep up the action of the heart under continued excitement, the heart flutters and beats perceptibly, we get almost out of breath, and pant and breathe heavily, and this a dozen times a day. We keep up this strain to the very hour of retiring, which is frequently much later than it should be, and then fall asleep under excitement, when our rest is disturbed by dreams. We are living under continual mental strain

and anxiety, either of study, business or cares. These are the fruitful causes of sudden death, for which there is no remedy, but there are preventives.

Valuable Preventatives.—Cultivate an equable temper. Nothing is so apt to produce sudden death as mental excitement. Cultivate a pleasant disposition.

Be regular in your habits. Take your meals at regular hours, and do not hurry in going to the table, or while eating, or in leaving the table. Do all these things moderately, and take a rest, mental and physical, after the meal. So in sleeping. Keep good hours for retiring and take plenty of sleep. Do not go to bed under mental excitement.

Work always by the day, and not by the job. When you do mental work, never do it as if you were working by the job, or under a high pressure system. Always stop before you are fagged out.

Never cross a bridge, before you come to it.

Never run to meet a train, nor attempt to board it while it is in motion. Do not run up stairs. Do not hurry and rush unduly, so that you get out of breath, particularly not if you are past middle age.

A sudden death, by the way, is not undesirable, when once the time of our departure has come. To be suddenly translated, when prepared for the event, as Enoch and Elijah were, and as all the saints shall be, at the glorious *parousia* of our blessed Lord, is a consummation devoutly to be desired, but do not hasten that day unnecessarily.

Summer.

Summer Vacation.—With some, July is the busy season, with others it is the slack month, and with others, again, it is vacation time. The farmer is in the midst of wheat, hay and oats harvest,—this is his busiest season. The merchant and the manufacturer has a slack time, and the clerk, teacher and professional men, in general, have vacation.

The time is at hand when many hard workers seek for a little rest and recreation, these hot summer days and nights. The clerk and the merchant need a change from the close confinement of the store, the mechanic needs a few days off from his shop; the teacher, freed from the school room, must get out to the open air; even the farmer, though not confined to the house, ought to have rest for his weary limbs, after the hard work of his hay, wheat and oat harvest; his wife, yea, all wives should, by all means, have a "let off" from the drudgery of household duties, the continued bending over the hot kitchen stove and the worriment of her work.

Thousands are under the ground now, the names of whom you can recall, whose string of life snapped asunder, just because there was such a constant tension, no relaxation in ten, twenty, thirty years. Kind, burdensome nature is long suffering, but the camel's back will break at last.

Rest is Needed.—It is change that is needed by the mind as well as the body, *recreation* is *re-creation*, and there is nothing better to *re-create* body, mind and soul than an entire change, this is the new creation. No person will ever lose, in the long run, by taking recreation; he will not lose in time, nor in money, nor in a dying hour, nor in the eternal future.

A change, a change of scenery, entire rest from all anxieties and worriment, a dismissal of cares, laying aside and having a free and easy, "go as you please" time, is what everybody needs.

A few days of real, rollicking recreation, in July or August, will be of great service to every one. Take your few days off, tired, well nigh exhausted brother and sister.

Where shall it be had? Go away from home to do it. Your crops are housed, your books balanced, your school term has expired, and, now, off for the woods, the mountain, the shore, or some secluded spot, where no fiends torment or thirst for gold, where no collector of bills can find you, where there is no cooking and washing of dishes, where, entirely freed from all work and care, you have nothing to do but sleep, fish, play and do as you please. Go, reader, where you can dress in your commonest clothing; and you, poor overworked wife, don't take that everlasting "sewing" along with you; resolve not to take a single stitch during your entire absence; let your only "sewing apparatus" consist of a ball of yarn, a skein of silk and two needles; leave

your thimble at home; if you sew on all the buttons and keep the stockings darned, that will be quite enough.

Leave Your Cares Behind.—The President of the United States has set us a good example, recently, by taking recreation in the mountains, and "roughing it." This is the kind of recreation we all need. Away from dust and dirt, and smoke, and excitement. Leave all your cares behind you. Sleep till ten o'clock, if you wish, dress but once in 24 hours, scale fences, climb trees, catch fish, gather berries and wild flowers, build mud dams, wander over brook, and branch, and hillside, and mountain top, by the public road or the seaside, row a boat, ride a horse, skip about in the clear moonlight of summer, anything whatever that gives you a change. If you are in town go to the country, if in the country go to the seashore or the mountains, or huckleberrying, or fishing, swimming or botanizing; or with hammer and microscope study the rocks and read the histories of the localities from ages before the flood, as you can do; climb mountains, explore caves; in short, do anything and everything which will entertain, instruct or gratify yourself or others, from breakfast until noon, and from dinner to sundown; so that when you come home to dinner, you will be as hungry as a bear, and bacon, cabbage and corn-bread will taste sweet to you. After dinner go again, that when you come home at sundown you will sigh for the bed, hardly taking time to have a dry cracker and a cup of tea, all that you ought to have, and all that night you will sleep like a

baby, and next morning you will feel hungry enough to eat your wife and children, and so happy and good-natured that life will have new charms for you.

Always get plenty of sleep. Insufficient sleep is followed by a day of yawning, discomfort and drowsiness. The first step toward insanity is insufficiency of sleep. Better go without food for ten days than without sleep for two. Nature can not be cheated. No rest will recuperate unless there is plenty of healthful sleep.

There is divine authority for such rest. The Creator Himself took a vacation at the close of His six days' work. Our Lord and Savior took His vacation. He frequently withdrew from the busy scenes of life to the woods and desert places, where the multitude could not find Him, where, in retirement and seclusion, he could rest and expatiate.

There is rest in heaven, it is true, but in order to perform the work of life, while we sojourn in the flesh, we must have our period of rest in this world. The gospel of Christ teaches us the necessity of rest and recreation, and health, both by the examples which it furnishes and the precepts it inculcates. Obey this Gospel, and serve God by your mid-summer vacation, so as to strengthen body and mind for more efficient service hereafter.

Change is rest, re-invigoration, recreation; re-creation.

Summer Rules.—Keep as cool as possible. Be temperate. Avoid alcoholic drinks. Beware of a costive

condition of body. Bathe often. Do not work harder than necessity compels. Should dizziness or nausea be felt stop work at once, douse the head and shoulders with water — ice water, if possible — and lie down in a cool place. In case of sunstroke rub the body with ice and apply ice to the wrists, temples and back of the ears. If the skin be cold instead of hot, it is heat exhaustion and not sunstroke, and the treatment should be with hot baths and alcoholic stimulants.

These things are not hard to understand or remember, while their observance may save life. It is necessary to remember them, because this is a time when it is in order to take extraordinary precautions to save not only the health but the life.

Select Food with Care.—Care must be had of what we eat and drink, if we would preserve health at this season. Coffee, tea, cold water, lemonade, and other acids and ice cream are healthful. Acids promote the secretion of bile, prevent fevers, and keep the system free; hence the advantages of fruits, berries, cold slaw, salads, pickles, sour milk, etc. Sweet milk, ale, beer, alcohol, etc., create bile, constipate, induce head-ache, cold feet, neuralgia and want of appetite. Eat three times a day and nothing between meals, and do not indulge in luxuries.

If God had intended that we should guzzle down glass after glass of ice water, he would have created the water with the ice in. But he did not, and, hence, common sense admonishes us to drink ice cold water with great moderation on hot days, if we drink it at all.

If God had intended that we should drink alcohol, he would have prepared it for us in the drinking water. He did not thus prepare it, and, hence common sense teaches us to let it alone.

Animal Sense.—Cows, pigs, dogs and other antmais can not be said to have common sense, but they have cow, horse, pig and dog sense. They do not force food or drink into their stomachs, when they have no appetite for it. Why should a human being, endowed, if not with common sense, at least with more than cow, horse or pig sense, force himself to eat when not hungry, when nature does not deserve food or drink?

Some persons imagine that living on pure country milk, when they get into the country in summer, will do wonders for them. Common sense teaches that milk is the food for babies and kittens. Grown persons who use a great deal of milk become bilious and constipated, unless they work steadily and hard in the open air.

Natural sense teaches animals to go into water frequently in summer; common sense should teach us to keep the body clean by frequent bathing in hot weather.

Experience, which is a good common sense teacher, teaches the Esquimau to eat whale blubber in the rigorous climate of the far north; but it also teaches the Chinaman to eat rice and a vegetable diet in a hot climate. No person, with common sense, will swallow blubber, pork, bacon and fat in hot weather.

Lessons from Prof. Lenz.—Prof. Oscar Lenz, who has crossed Africa almost entirely on foot, ascribes

his escape from all climatic dangers to his strict attention to hygienic rules. He abstained from raw fruit and never drank unboiled water. His usual food was rice, chicken and tea. He never touched wine or spirits. He carefully avoided bathing in rivers and pools of clear, cold water, so tempting to travelers, but so apt to give fatal chills. He dressed in flannels and avoided exposure to the night air. He thus passad unscathed through districts reeking with marsh fevers, ague and small-pox.

Here is a lesson, taught in few words, which, if observed, is worth not only money, but comfort, health and life. What Prof. Lenz could do, by the help of the Lord, and the Lord cares for those who take care of themselves, in Africa's dire and deadly climate, we should do, under the African sun of the temperate zone. We believe in doing just what he did, with the exception of the raw fruit, which, it may be necessary to avoid in Africa, but which we should certainly recommend everywhere in this climate, to eat in moderation, when fully ripe. There is not a more healthful diet, sanctioned by experience and sanitary rules, than strawberries, raspberries, blackberries, dewberries, huckleberries, cherries, apricots, peaches, apples, bananas, grapes, and even pears and plums, when eaten cautiously.

Summer Hints.

Seasonable Rules.—Seven hours of sleep are enough in summer for most persons. A nap in the daytime causes the night sleep to be disturbed and imperfect.

The less a person drinks in hot weather the better. The more we drink the more we want to drink. The longer yon can defer drinking cold water, on the morning of a hot day, the better you will feel at night.

If you find that you have eaten too much, do not take anything to "settle the stomach," and, thus, add a greater load, but take moderate exercise till the skin becomes moist, and do not stop till entirely relieved.

Eat regularly the fruits which nature provides for warm weather, such as strawberries, currants, cherries, gooseberries, peaches, water melons, etc. These when in season are always healthful, if eaten moderately.

Nature craves something acid in warm weather. The best, most cooling beverage is weak lemonade, not too sweet. Give the children some every day when thirsty. It should not be too sweet, or it will form an acid in the stomach.

Cucumbers, cold slaw, salad, tomatoes sliced in vinegar are healthful, if eaten with moderation. We all eat them for the sake of the vinegar, and it makes but little difference which we use. The superstitious notion

that cucumbers are cholera fodder is "moonshine." The vinegar in the cucumber is what the stomach craves in warm weather.

Babies should be bathed every day, but for grown persons to undergo such an operation is hurtful. It is necessary, however, for the promotion of health, that at least once a week there should be a thorough washing of the whole body, with soap and soft water, at a temperature of about 80° Fahrenheit. The entire time should not exceed 20 minutes. In warm dusty weather the hands, face, neck, throat, arms and armpits should be washed several times a day.

Mortality Among Children.—In the short period of one week no less than 952 children died in the cities of New York and Chicago alone. The mortality in New York reached 683 children under 5 years, an increase of 141 over the preceding week. The deaths in Chicago numbered 269, of whom 199 were less than one year old. These figures should remind parents that they have reached that season of the year when infant mortality is greatest, and that for six weeks or two months the greatest care should be observed in the treatment of the young. The lives of thousands of infants are sacrificed annually through ignorance and inattention. Overfeeding is a prolific source of summer complaints. Even foods that are wholesome and properly prepared may be given in such quantities as to cause sickness. When the stomach is gorged, fermentation, instead of assimilation, is the result; and when nature

rebels against cramming very slight neglect on the part of parents or nurses will be followed by a fatal fever or diarrhœa. The use of unripe or unsound fruits and vegetables is another source of danger which cannot be too carefully guarded against. Unceasing vigilance and the exercise of good common sense in the treatment of children are necessary to get them safely through the summer months. They should be given light and nourishing diet only, and in sparing quantities. They should have plenty of fresh air and their bodies should be bathed daily. Strict attention should be paid to the matter of clothing, so that colds may be avoided as a result of changes of temperature, especially in the evening. When alarming symptoms are developed no time should be lost in summoning a physician. It is always dangerous to trifle with the deadly cholera infantum.

In intensely hot weather, acids are formed very quickly in the stomach. Fruits, not fully ripe, sweet things, ice cream for example, and similar substances, when eaten a little in excess, sour the stomach and produce nausea and sickness. Summer complaint, among children, and looseness of bowels and dysentery, dyspepsia, etc., in older people, are some of the consequences.

Tobacco.

Cigarette Smoking.—The cigarette evil is growing and it is ruining many of the boys of our country, both physically, mentally and morally. It is necessary, not only that parents, and those who have charge of boys (even some girls smoke them) take a determined stand in the matter, and invoke the strong arm of the law wherever it can be done.

The evidence from 200 doctors before the Michigan Legislature is worth heeding. They each cited cases of boys being dwarfed, made insane, killed or rendered incapable of speech. The professors of Michigan University also testified at length of the effect on the students who were made stupid by cigarettes. The fact is well known that cigarette smoking is far more injurious to the health of the smoker than the smoking of cigars. In a cigarette there are five poisons; in a good cigar one. In a cigarette there is oil in the paper, the oil of saltpetre to preserve the tobacco, and opium to make it mild, and a couple of poisonous oils are used in the flavoring.

They are Vile.—One of the most effective arguments is the proof that most of the cheap cigarettes are made from the filthy butts of castaway cigars, gathered from the gutters by Italian scavengers. Some of these people make as high as $10 a week at this trade, selling

these stumps to New York manufacturers of cheap cigarettes.

One this subject Joe Howard says: If young people could only see what cigarettes are made of, one would think they would be the last things a self-respecting youth would put in his mouth. As for the women who smoke cigarettes, I have nothing to say. There may be men who enjoy the fragrance of a cigarette-drenched woman. I am not one of them. The odor that comes from the paper, the sickening offense that arises like a cloud of miasmatic vapor, permeating their breath and making noisome every pore in their body, may have attractions for the purlieuistic denizens of the gutter, but I always feel about them as the Scripture writer did about the dog who returned to his vomit. A great deal of attention is being directed to this subject of late, and the Trenton *State Gazette* says: "A short time ago a gentleman of this city who has a natural antipathy to cigarette smokers began clipping from the newspapers, as he read them, notices of casualties caused by cigarette smoking, and now presents them as a stronger argument against the habit than any other line of reasoning." A few of these fatalities are here produced:

Laurence Murphy, aged 23, was found dead in his bed at his home, Bridgeport, Conn. He was a victim of the cigarette habit, and to this alone is his death attributed.

Thomas Calt, a 12 year old boy, violently insane as the result of cigarette smoking, was taken to the New Haven, Conn.. almshouse.

A 15 year-old son of John Huff dropped dead at Sommerville from heart disease, caused by the excessive smoking of cigarettes.

The death of Fowler Simpson, at Newton, recently, was due to cigarette smoking.

Frederick Long, aged 14, died at Lockport, N. Y., from excessive cigarette smoking.

Carleton Harris, of New York, a nephew of Jay Gould, died suddenly at Round Island, N. Y., where he has been spending his vacation. The cause of his death is supposed to be cigarette smoking.

Fifteen other similar cases are given by this gentleman, all having occured within a few days.

They Dwarf Manhood.—To see boys eight and ten years old, with cigarettes in their mouth, puffing away, is, to put it mild, a most disgusting sight. Yet there are plenty of them. We were obliged, quite recently, as a school controller, to suspend several boys from a primary school whose offence was smoking on the school grounds. Another, in one of our high grade schools, could not continue his course of studies, because he smoked excessively. The *Boston Journal of Health* says very truthfully:

"It is a fact which cannot be disputed, that boys who are persistent cigarette smokers do not reach perfect maturity. Their growth, both physically and intellectually, is retarded. Their nervous system is but imperfectly developed; digestion, sight and other important functions are seriously impaired. Irritability of

the heart is one common consequence of the use of tobacco in any form in early life. Let all boys who use tobacco understand this ; they can never hope to become men. They will grow old, and prematurely old, but true, manly development and vigor they can never attain ; and for their chances of success as students and scholars, even the mild use of tobacco impairs them, and the persistent use wholly destroys them. Never before the age of 21 is reached should tobacco be indulged in, and its use might more wisely be delayed until the body has become fully and completely developed. Parents should see to it, and, if necessary, laws should be enacted, that this rule be strictly enforced. There is an awful responsibility here which all should feel, and do their utmost to stay the degeneration of our youth, which is threatened by this, one of the greatest curses known to us — the tobacco habit in boys.

Typhoid Fever.

Causes.—Cases of typhoid fever are most common in autumn and early winter. It attacks the young and old the rich and poor alike. The innocent suffer not only *with* the guilty but frequently *for* the guilty. Typhoid fever is no doubt traceable to causes, prominent among which are impurities in the water and the air, caused by refuse matter being thrown about indiscriminately, contaminations of water caused by pig stables, water closets, imperfect sewerage, emanations rising into the air from decomposed vegetable and animal matter, etc. In a town, or even in the country, persons may be guilty of causing typhoid fever by their indiscretions, while they themselves escape an attack from the disease, and innocent persons, whose system may be in condition to be affected, contract the disease and pay the penalty with the sacrifice of their lives, which others, who were guilty of producing, escape.

Families, schools and communities should exercise the greatest most conscientious care, when there is evidently a typhoid condition of the air, to prevent the occurrence of this disease, not only for their own sakes but for others, because they may by indifference, cause the sacrifice of innocent, useful lives.

Ventilate your rooms, keep a good fire in your

buildings. See that the draining, surface and underground is perfect. Allow no decaying rubbish to lie about the buildings or streets. Use disinfectants, drink pure water, obtained from wells away from buildings, or clean cistern water.

Description.—The word typhoid means like typhus, and typhus means blind, stupid. Certain symptoms precede the attack in a part of the cases, such as a sense of weariness and general uneasiness, headache, especially in the morning, dullness of intellect, flushes of heat or chilliness, furred tongue, pulse accelerated, and a tendency to diarrhœa. The above symptons may occur for a few days, and occasionally for more than a week, when the disease is ushered in by a chill followed by fever. The pulse ranging from 90 to 120 per minute; but usually is less than a hundred. There is a dull, heavy, expression, pain in the head, back, and limbs, bleeding from the nose, restlessness with a want of sleep, and diarrhœa with yellow watery discharges, thirst and loss of appetite. The urine is highly colored and diminished in quantity. In severe cases the pulse rises above 120, is feeble and irregular, the breath offensive, the breathing hurried, the tongue dry and brown, or red and glazed; the lips cracked and parched; great depression and usually the abdomen is tender. These symptons become aggravated each day. In eight or ten days rose colored dots appear in most cases on the abdomen, and remain for two or three days, when they disappear and are usually replaced by a fresh crop. The second week

the following symptoms may occur: sleepiness followed by slight delirium, which frequently becomes violent; ringing of the ears of deafness, hiccough, pains in the muscles, and great debility, etc., etc. The mildest cases cannot be looked upon as being free from danger, nor on the other hand are the worst cases to be considered inevitably fatal. Among the most unfavorable symptoms are deep sleep, stentorious breathing, rigidity of the limbs, profuse diarrhœa, hemorrhage from the bowels, great prostration.

Well Water a Great Cause.—During the heated summer term water is drunk very freely, by almost everybody. Well water, of course, comes in for its share, and this is frequently so impure, that the result is typhoid fever. Fortunately the wet seasons of the past years have so diluted the poison of polluted wells, that there has been less of this disease than the usual average. But there always is danger, and particularly in summer, when much water is used, and the wells run low. Prof. Wilbur, of Rutger's College, says:

"The average house owner certainly believes that the water which he pumps clear and cool from his well is pure and wholesome. He does not stop to think of the impurities with which it may have come in contact during its flow from the surface to the bottom of his well. This well may be sunk in the immediate vicinity of an overflowing cess-pool or out-house; the natural drainage of his own or his neighbor's barn-yard or pig-sty may be flowing over the soil through which is filtering the water

that is to fill the underground cistern; or its bottom may be in a porous stratum of soil or gravel that receives, at a point higher than the bottom, the drainage from some graveyard or other source of decaying organic matter; some neighboring tree may have thrust its rootlets through the wall of the well and there they remain to decay; or the top may not be tightly covered and strong, toads and other vermin may tumble in to aid in the pollution of the supply; but our well owner, not seeing, smelling or tasting the results of these additions to the underground reservoir, is not conscious of their existence. A filth saturated condition of the soil exists in every old and thickly settled community. Near every stable, every out-house or cess-pool, with their porous walled (if walled at all) vaults, every kitchen drain and sewer, is furnishing its quota of organic impurities, all of which supply matter for decomposition. The products of this decomposition are carried, as we have seen, directly to the wells, and they thus become suitable breeding places for bacterial life — powder magazines, only needing the spark of a typhoid or other deadly germ to furnish the explosion of a scourge of disease."

Matter in Waters.—Nearly all natural waters hold in solution or suspension a larger or smaller proportion of organized matter, which determines to a certain extent, their impurity and unfitness for domestic purposes. We shall divide the organic matter present in water into the living and dead—both having their origin in the animal or vegetable kingdoms. The dead

animal matter, among the natural causes of contamination, consists of the bodies of fish, insects, infusoria, etc., as also the soluble nitrogenized compounds dissolved out of these by the water. The dead vegetable substances are the remains of water plants, leaves of trees, etc., which, particularly in autumn, are found in fever water in considerable quantities. As the laws of vitality have no longer any control over those substances, they become decomposed and resolved into their component elements, which combine, according to the laws of chemical infirmities, and yield products complex in their chemical constitution, and of a more or less dangerous or unwholesome nature.

The living organisms of animal origin found in water are fish, infusoria, insects, etc.; of vegetable origin, water plants, and a variety of singularly organized atoms, invisible to the naked eye, known by the popular name of microbes, which are certain colorless algæ belonging to the family bacteriacæ. Inasmuch as the living animal and vegetable productions are dependent upon the the dead organic matter of the water for their sustenance, it follows that wherever living beings are found in water there must exist the requisite materials for their nourishment. Pure *distilled* water can neither sustain animal or vegetable life. The existence of living organisms in water in larger or smaller quantities, is an indication of the greater or less amount of soluble organic matter in the water in the water, is also of its purity or impurity. When they exist in small quanti-

ties it follows, other things being equal, that the water be pure. These living beings, animal and vegetable, act as depuratory, and we learn by their presence that there must exist the requisite amount and proper sort of food for their maintenance, hence their existence in water denotes a certain amount of soluble organic principles. We cannot but think, therefore, that the value of the information derived from microscopical observation of the organic impurities in water has not been heretofore sufficiently insisted on.

City Sewerage.—It is now agreed that the sewerage matters of towns, including excretal and household wastes, however largely diluted, cannot with safety be allowed to flow into any source of water supply used for dietetic or culinary purposes. In order to carry off such wastes a system of closed vessels or impermeable pipes should be provided, distinct from the storm water drains, to discharge the matter at a depot or outfall independent of any river or stream, except for a practically pure effluent. The discharge, directly or indirectly, of crude sewage into any source of water supply, however remote, is a constant concomitant of epidemic diseases, while a proportionate exemption from such maladies will invariably follow the removal of the pollution. A pure and abundant supply of water is cheap at any price, and "millions" to secure it, would be better than "millions for defence." I scarcely need add that all manufactories and trades should be required to clean their own waste; not, of course, to convert it into a chemically pure water, but

simply to deprive it of its power to become a nuisance to others when discharged into a public water-way.

Typhoid is More Dangerous than Yellow Fever.—This may be a somewhat startling assertion to many of our readers, but it is nevertheless true. The statistics prove that the mortality rate of typhoid is greater. About one of eight cases of yellow fever have proved fatal, even where it was epidemic, of typhoid the rate is one in five or six. Yellow fever is confined to a limited district, and a certain season, while typhoid has all seasons for its own, and the boundless continent is its domain. Where yellow fever has slain its tens, typhoid has claimed its victims by hundreds.

Typhoid fever is communicable, not like yellow fever and small pox by contagion. The same causes produce it under the same circumstances. Half a dozen members of the same family, or that many persons in the same neighborhood, make take it but not from contagion. The same causes that produce it in one case may be at work and will produce other cases.

Examples.—In 1859, we had typhoid fever in our school, at Quakertown, Pa., no less than half a dozen down at one time. It was one of our first experiences in connection with the disease. We have studied it ever since. It originated then in the impurities in the water used from an old well. At Kutztown, in 1875, we had it in school, resulting in several deaths. It was caused by the bad water. At Mansfield, Pa., Normal School, where it prevailed so terribly, in 1874, resulting in a

score of deaths, and over sixty cases of sickness, at the same time, we warned the authorities, a year previous, that their water closets and imperfect sewerage, under the same roof, where the students ate and slept, would cause a serious outbreak of typhoid, and we were, unfortunately, right, though our warnings were not heeded at the time. Our observations have, in hundreds of cases, similar to these, borne us out in the conviction that typhoid fever *always* has its cause, that, while it may be neither contagious nor infectious, the same causes that produce it in one case, in the same family, school, town or community, will produce it in another.

A writer in the *Annals of Hygiene* says, very correctly:

Typhoid Fever is a "Filth Disease"—not sometimes, not generally, but always. And perhaps the next in importance is that while the production of the disease probably requires that the morbific agent shall be brought into contact with the alimentary mucous membrane, as in food of drink, it is possible for the salivary fluids in the mouth and throat to absorb the poison from the atmosphere and thus become the medium of its transmission to the stomach. There is also a third lesson of no less value to us, viz: That various articles of food, and especially milk, water and other fluid foods, possess the same property of absorbing the fever poisons from the atmosphere and thus becoming the vehicles of its introduction into the system.

My own observations are fully in keeping with the

view that the absorption of the poisonous emanations by the salivary secretions, and by food stored in pantries and kitchens, but especially the latter, furnishes the explanation of nearly all the so-called "sporadic" cases of true typhoid fever. In a large proportion of cases it will be discovered on examination that odorous emanations from kitchen drains, but more frequently from privy vaults, are easily perceptible to the senses in the rooms where food is stored and when it is prepared for the table. In most of the observations I have made on the subject, it has appeared to be the privy vault rather than the drain that has been responsible for the evil.

Rain Water Best.—Avoid using suspicious water. Pure cistern water is always the best.

Many springs also furnish impure water, especially such as have their sources in localities where refuse matter is deposited, old grave yards, etc.

Rain water, fresh from the clouds, is always the best. It has been distilled in nature's own retort, and is, therefore, the purest. Have a good, tight, clean cistern, and use its water for drinking and cooking purposes. Where this kind of water can not be had drink no water. Use coffee, tea, milk for drinking purposes.

How to Avoid Typhoid Fever.—"It may be remarked, can nothing be done to prevent typhoid fever? And it must be answered that in our present condition of knowledge as to the causes of that disease but little can be done and that in a general way. Our farmers would not, if they could, do away with the exu-

berant richness of the virgin soil, nor diminish the almost tropical temperature of our summers, yet these are the prime factors in the production of typhoid fever. Any one wishing to avoid this fever should look to the following points:

As to water, to see that it is as pure as possible If from a cistern, to see that it is well-built and frequently cleaned. If from a well, that it is walled up with brick or stone, laid in cement, and is so situated that it gets no surface or soil-water contamination; that it has no wooden curb to rot and furnish common cause of the fever, aqua malaria.

The house should be well ventilated, not built over a marshy spot, or one with a clay subsoil. It should have a cellar, either naturally dry or made so by efficient drainage, and this cellar should never be used as a store-room for vegetables, and if this is unavoidable, that these should never be allowed to rot.

No slop-water, nor indeed any kind of water, should be thrown upon the ground near the home. All garbage, if not consumed by pigs, should be frequently removed, or better still, especially in towns and villages, burned up in the kitchen fire.

If drains exist, and they are exceedingly necessary to any well-ordered household, they should receive constant care and attention, that they have no leaks nor obstructions, and that they are as frequently and as thoroughly flooded as the water supply of the place will admit. Though fæces do not here play the important

part in the production of typhoid fever as it appears to do in England, yet on general hygienic principles no accumulation of it should be allowed to take place, but where privies, and still worse, cess pools exist, they should be kept from putrefaction by the abundant use of that good and cheap disinfectant, copperas. This is important at all seasons of the year, but is particularly necessary in spring, when the increase in temperature, as the weather grows warmer, is calculated to set free the poisonous gases on the premises.

In case of sickness from typhoid fever in a family, isolation of the patient, as far as possible, is to be recommended, not from any fear of contagion, but to afford that quiet, and that abundant supply of fresh air so necessary in the treatment of all fevers. The stools should be disinfected and deodorized as soon as passed, not for fear of contagion, but upon the general principles of decency and increased comfort to all the household."

One tenth the attention given beforehand to the laws of health, which a single typhoid patient requires after the disease has gained a foothold, will go far in preventing it.

We hope that every reader may consider himself a self-constituted health officer, and, both for his own good and that of his neighbor, do his utmost in dispelling all causes of disease.

As to Remedies.—We have no remedies to prescribe. Always consult a reliable physician and follow his advice. But, remember, that an ounce of prevention is better, etc.

There are reasons, a dozen of them, why typhoid fever does prevail to such an alarming extent, and there is no time for moralizing and philosophizing. Action, action, action.

Typhoid fever is one of those diseases for which we are ourselves responsible. It is not a visitation of Providence, as that term is usually understood. Yes, Providence does visit, and even the sins of fathers upon the children to the third and fourth generation, but through means, not as a direct visitation from heaven. Our own sins and neglect of duty do entail upon us visitations of Providence. We dare not hold Providence responsible for our sins. We dare not saddle upon Providence our own indiscretions and neglects. We have no more right to believe God will remove the causes of disease, than that he will place the dishes and food on our tables, or remove the same, when we sit down to eat. We have our duties to perform. God employs means for accomplishing purposes.

Use Little Medicine.—There is no doubt that the less medicine there is used with good treatment, care and experienced nursing, the better. It is, indeed, a question, whether nine-tenths of all patients would not get along better if they did not take any medicine. Watchful care, cleanliness, proper dieting, air, rest keeping intruders out of the sick room, especially cranks, and removing the causes of disease, as far as can be ascertained—these are powerful curative agents. Besides this, there is no doubt that the prayer of faith

will save the sick. God has said, James V. 14, 15: "Is any sick among you? let him call for the elders of the church, and let them pray over him, anointing him with oil in the name of the Lord, *and the prayer of faith shall save the sick.*" This promise of God remains forever, yea and amen. He has promised to heal the sick in response to the prayer of faith. There is no doubt that God will do just what he has promised. We know he will. His word gives us the assurance, and it can not lie. Our own personal experience is that it will be done. We have seen it and known it to be done wherever and whenever faith was properly exercised. We can name cases where, in response to our own feeble prayer, the promise of God has been most clearly and signally verified. We are not fanatical on this subject, but we do know whereof we affirm.

Teeth.

Value and Care of.—The first tooth appears in six months, in the third year all are "cut," between the seventh and twenty-first year all the permanent teeth have made their appearance; the value of the latter depends on the care taken of the first set; and as the looks, health and happiness are all materially modified by good teeth, intelligent and affectionate parents will look to the teeth of their children as early as the third year, when, instead of being allowed to eat meat, they should be mainly fed on fruits, vegetables and bread made of wheat, corn or rye, ground coarsely, using the entire product, bran and all, because in the bran, is found almost exclusively, the solid material which is to make the bone or body of the tooth and its covering, called the enamel.

The child should be taught at five, to dampen the brush in water every morning, rub it over a cake of castile soap and then brush the teeth well, inside and out, front and rear; until, with the aid only of the saliva, the mouth is full of soap-suds; then rinse with tepid water, twirling the brush sideways over the back part of the tongue, so as to cleanse it fully of the soap and leave a good taste; after each meal, the mouth should be well rinsed with tepid water, as also the last thing on retiring; the mouth maintains a temperature of ninety-eight deg-

rees; hence, if any food lodges about or between the teeth, it begins to rot very soon, giving out an acid which immediately begins to eat into the tooth, preparatory to an early decay; if solid particles are observed to lodge between the teeth, the child should be taught to use a very thin quill to dislodge it; but not without, for the more a quill is used the greater space between the teeth; which is a misfortune, as it necessitates the use of a tooth-pick for all after life, consuming a great deal of valuable time. It is a wicked blunder to advise that a silk thread should be sawed between the teeth after eating; nature intended the teeth to grow so close together that nothing could get between them. It is a bad practice, except in very rare cases, to remove the stump of the first teeth; let them be displaced by nature's own process. That dentist is an ignoramus, who advises a sound tooth to be drawn to "give more room" for the others, thus preventing that natural expansion of the jaw, which gives "character" to the face, and greater power of mastication, an essential element of an easy and healthful digestion of the food. A clean tooth does not decay. Acids, sour fruits, always injure the teeth instantly; sweets never do; without them, children would die, hence their insatiable instincts for sugar. If a tooth powder was never used, the teeth would not be so white, but kept perfectly clean, would last for life.

A towel folded several times and dipped in hot water, and quickly wrung and applied over the toothache or neuralgia, will generally afford prompt relief.

The Throat.

It is a mistake to suppose that the throat must be muffled in cold weather. The fur mufflers are throat disease producers, so are scarfs and heavy neck-ties. Some people are in the habit of bundling up their throats with a feather bed, and these are the people who will die of bronchial consumption. Exercise causes perspiration of the throat, when it is kept too warm, and, afterwards cooling off, will produce a chill, following by a hacking cough, throat-ails and bronchitis. The back, especially between the shoulders, should be protected. That is the region of the lungs, the most delicate of all organs. Always throw a shawl, mantle or overcoat over the shoulders, when leaving the room in cold weather.

The Spitting Habit.

Disgusting and Destructive.—No decent person will deny that the prevalent habit of spitting here, there and everywhere is, to say the least, disgusting. Now, in the light of recent developments, it would appear that this habit is not only disgusting, but absolutely and definitely dangerous. Whether Koch's bacillus is the cause of consumption or not, there is one fact upon which we all agree, namely, that the sputa of a consumptive contains the seeds of the disease. That consumption is spread by the indiscriminate expectoration of consumptives is a now well ascertained fact, but probably, this fact has never been more conclusively demonstrated than by the following occurrence: In a certain business house in Paris twenty-two persons were employed. Among these was a consumptive who coughed and spit upon the floor for three years, and until within three months of his death. This was in 1878, and since that time fourteen out of the twenty-two men have died with pulmonary consumption.

Spitting should not be allowed in the school room, nor at home. Spittoons should be banished from the home, and the inmates of the house, as well as visitors be taught to dispense with spitting. Man is not a spitting animal.

Winter.

Its Sickness and Cures.—This is a season of the year when diphtheria, scarlet fever, pneumonia, typhoid fever and kindred diseases are more than usually prevalent in all sections of the country. A word of caution, therefore, and of advice may not come amiss.

Home cures, sometimes effective, and while they have the recommendation of being harmless, should, nevertheless, as a rule be given a wide berth. It is true, these cures of our grandmothers sometimes seemed to do us more good than the doctor's medicines. The herbs strung on the garret rafters, sage, hoarhound, boneset, etc., have medicinal virtues, and they relieved us of our colds, sore throat and feverishness in childhood. But while this much can be said of the house cures, it must be admitted that by "tinkering" with such apparently simple and harmless remedies, sometimes the disease gained a firm foothold on the system, which might have been forestalled by more active measures employed by a skillful physician, and serious consequences avoided.

Do not Experiment.—Experimentation is always dangerous, when such important issues as health, life and death are at stake. One person may have employed a cure, some so-called specific, with success, while another, differently constituted, may try the same, not only without benefit but to his injury. The anecdote of the

two assess serves as an illustration here. The one laden with salt, in crossing a stream found his burden greatly diminished; the other laden with wool, reasoned, "what is good for my companion, must also be good for me," plunged into the stream, and before he was half way over, his load became so heavy, that he sank beneath it, and was drowned.

This is the folly committed by many persons. Some one has used a remedy for a certain complaint or disorder. It gave him relief. Another uses it, and is not only not relieved, but precious time is lost in this experimentation, the disease allowed to make inroads upon him, and the folly discovered when too late. There are no specifics, yes, we believe there is one, namely, that sulphur cures itch, but this is the *ne plus ultra.* Cures, specifics, patent medicines should never be employed, where persons are threatened with diphtheria, scarlet fever, pneumonia, typhoid, and the like. Here, whatever thou doest, do quickly, now or never, must be the motto. The loss of a single day may, in these diseases, decide the matter. Take time by the forelock. Send for a skillful, experienced physician. Do not wait till night, and then, at the midnight hour, rouse him out of his sleep. Make these diseases also a study yourself. In diphtheria, particularly, it is of the utmost importance, that every parent and school teacher should understand the beginnings of the disease, its earliest symptoms. Diphtheria has frequently fixed itself on the child, before it complains of pain in the

throat. A certain languor or dullness creeps over the child, it has not its usual vivacity, seems indifferent and inactive on the play-ground. When these symptoms are observed, no time should be lost in examining the child and having it attended to. Damp houses and cellars, crowded rooms, illy ventilated school rooms and sleeping apartments are favorable to the development of this disease, as well as of scarlet and typhoid fevers, while damp feet, damp clothes, exposure to draughts, becoming chilly after being over-heated, running out from an over-heated room, into the cold raw air, with mouth open, is productive of pneumonia.

Every parent and teacher who loves his children should be particularly watchful of their health at this season of the year.

Rules.—Do not let children sit close to a hot stove, while there is a door open, or a draught of cold air striking them.

Do not let children sit one moment with wet stockings on, or with damp feet.

Do not let children sit in the house with rubbers on their feet. Do not let children run out into the cold or wet, without protection to their feet and bodies. Do not let children bundle up their throats, so that they perspire when running out into the cold.

Do not let children go to bed with cold or damp feet.

Teach children to keep their mouths shut when out in the cold, especially when passing from a warm room

into the cold air, or when asleep. Do not refuse children permission to leave the room when they ask to do so.

Do not allow your children to take off any article of clothing when they are over heated, rather have them put on more. Never allow them to sit down in the cold or on the ground to cool off.

See that their backs are well protected when they go out of doors, the protection of the chest is not so important.

Do not let them go into cold damp beds at night, with the expectation that they will get warm after they fall asleep. Do not let them sleep under feather beds; give them woolen blankets. Do not let them go out of the house in the morning, before they have had a good warm breakfast. A little fresh air, introduced into the sleeping apartments from the outside, by opening the windows, if there is no draught over the bed, and the cover is sufficiently warm, is infinitely better than to have no ventilation and to inhale the foul air in the night.

These directions should be observed by older folks as well, in fact by everybody. Attention has often been called to them, but they require constant repetition.

Many Modes of Suicide.

Wearing thin shoes and cotton stockings on damp nights, and in cold, rainy weather. Wearing insufficient clothing, and especially upon the limbs and extremities.

Leading a life of enfeebling, stupid laziness and keeping the mind in an unnatural state of excitement by reading trashy novels. Going to the theatres, parties and balls in all sorts of weather in the thinnest possible dress. Dancing till in a complete state of perspiration, and then going home without sufficient overgarment, through the cool, damp air.

Sleeping in feather beds, in seven by nine bedrooms, without ventilation, and especially with two or three persons in the same small, unventilated bedroom.

A surfeiting on hot and very stimulating dinners. Eating in a hurry, without masticating the food, and eating before going to bed every night, when the mind and body are exhausted by the toils of the day and the excitement of the evening.

Beginning in childhood on tea and coffee, and going from one step to another, through chewing and smoking tobacco, and drinking intoxicating liquors. By personal abuse, and physical and mental exercises of every kind.

Marrying in haste and getting an uncongenial companion, and living the remainder of the life in mental

excitement. Cultivating jealousy and domestic broils, and being always in mental ferment.

Keeping children quiet by giving paregoric and cordials, by teaching them to suck candy, and by supplying them with raisins, nuts aud rich cake. When they are sick, by giving mercury, tartar-emetic and arsenic, under the mistaken notion that they are medicines and not irritant poisons.

Allowing the love of gain to absorb our minds so as to have no time to attend to health. Following an unhealthy occupation because money may be made by it.

Tempting the appetite with bitters and nicities, when the stomach says no, and by forcing food into it when nature does not demand and even rejects it.—Gormandizing between meals.

Contriving to keep in a continual worry about something or nothing. Giving way to fits of anger.

Being irregular in all our habits of eating and sleeping. Going to bed at midnight and getting up at noon. Eating too much, too many kinds of food, and that which is too highly seasoned.

A Pleasant Room for the Girl.—The first thing we must do is to get rid of the popular fallacy that any closet or room will do for the servants to sleep in, so that we are apt to give them such accommodation that every spark of ambition, if it has ever been kindled, dies at once with the first glance at the only place she can call her own. In arranging the division of rooms in

your house, do, if possible, select some airy, attractive place which may be converted into a pleasant living room. I know the builders of houses are now giving far more attention to servants' rooms than formerly, so don't let old-fashioned ideas clash against progress. Don't look into the neatly papered, painted and well ventilated room and say "too good," and set up the old, broken, defaced furniture in a loft or closet, or tiny out-of-the-way corner, which "can't be spoiled." Give the girls a room in which they can take pride, and then try to rouse in them a sense of delight in pleasant and orderly surroundings. It may be dormant and slow in coming to life, but in coaxing, as well as discipline, with a continued repetition of your demand for neatness, it will come.

Don't Run Up Stairs.—It would seem that nature may possibly have intended that cats and dogs should *run* up-stairs, but she certainly does not want human beings to so ascend. Yet, does there live a woman or child that does not run up-stairs? Men, probably, are too lazy to so rapidly elevate themselves; but whether this be the reason or not, it is a fact that men are not nearly so prone to *run* up-stairs as are women and children. We would ask our male readers, whose wives and children are sinners in this respect, to cultivate the habit of uttering a cautionary *don't run up-stairs*, whenever they are about to ascend. Reiteration of the caution will ultimately overcome the habit, which must be regarded as a very pernicious one.

Be Cheerful.—The man whose ha! ha! reaches from one end of the street to the other may be the same fellow who scolded his wife and spanked the baby before he got his breakfast, but his laughter is only the crackle of thorns under the pot. The man who spreads his laughter through his life—before a late breakfast, when he misses the train, when his wife goes visiting and he has to eat a cold supper; the man who can laugh when he finds a button off his coat; when the furnace goes out in the night, and both of the twins come down with the measles at the same time—he's the fellow that's needed. He never tells his neighbor to have faith. Somehow he puts faith into him.

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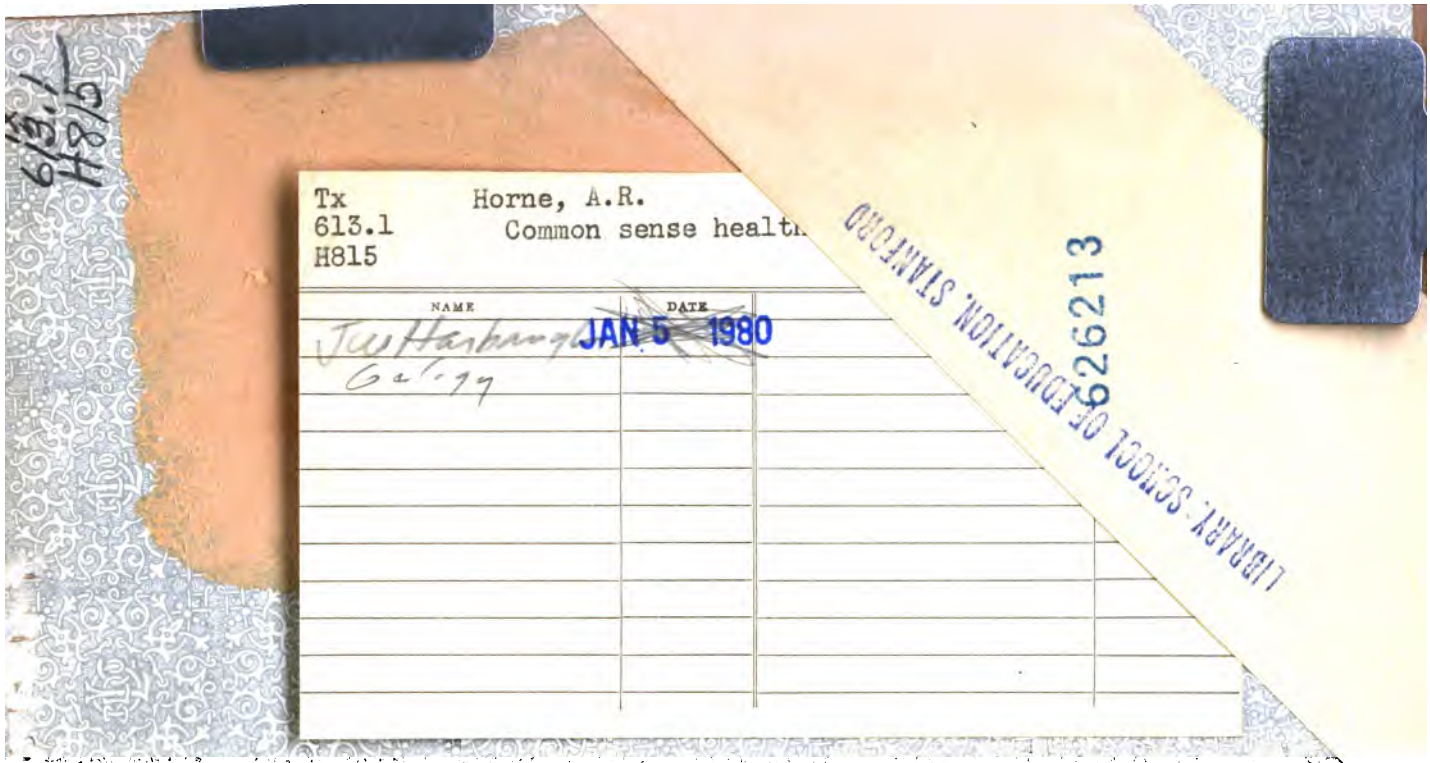
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